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A SCHEME FOR LOCAL SELF-GOVERNMENT IN RURAL AREAS

BY

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Public attention has been widely drawn to the urgent necessity of effecting large improvements in the countryside. It is now realised that villages have been neglected and the conditions prevailing there are wretched and miserable. District boards have not penetrated the village. *Their activities have mainly been confined to communications in the district, advancement of education and public health and such other activities dealing with the district as a whole.* The interior of the village, it would seem, has almost been of no concern of the district board. It has, furthermore, done little or nothing towards the amelioration of the economic condition of the villager. Here and there a district board may have established a seed store; otherwise it has not attempted to deal in the slightest degree with the vital problems of production and marketing or with the encouragement and development of cottage industries in the rural areas.

The need for rural development and rural reconstruction has been recognised, and practically in all the

provinces schemes, ambitious or modest, have been formulated for achieving progress in this direction. With the same object in view it is considered desirable to establish local self-governing institutions in the villages. It is felt that these institutions springing as they would in the village itself will evoke both local response and local cooperation and also give scope to local initiative, and will therefore prove an efficient instrument both for the political education of the villager in the art of self-government as well as for the improvement of his environments; and it is generally held that this object will be attained by the establishment of panchayats on a very extensive scale. It is also thought that inasmuch as the panchayat is an ancient institution suited to the genius of the people, it will appeal to the villager and will be an effective agency for the execution of progressive schemes. One accordingly reads reports in newspapers that legislation for the establishment of these panchayats in the rural areas has been enacted or is being undertaken in many provinces and also in several Indian States. I am not very familiar with the lines on which these panchayats are proposed to be constituted, but it seems to me that the method most commonly favoured is that of election. The panchayats, speaking broadly, are to be modelled on our existing municipal institutions. The franchise may undoubtedly be wider; the panches may be elected by a process of adult suffrage, but in substance the machinery will be the same. The panches will be elected for a term of years and the panchayat so constituted will be a body of persons having both executive and taxing authority. It will have obligatory as well as discretionary powers. It will have funds of its own, and it may add to these funds by a little local taxation.

I do not propose to dwell at any length on the merits or demerits of this system of local self-government. Nor do I wish to emphasise that elections may in conceivable circumstances lead to friction and to rivalry and instead of promoting peace and harmony in the village may end in discord and corruption.

I wish, however, to emphasise strongly two aspects of this problem. One is that representative government is a

device which need only be adopted where it may not be possible, owing to the largeness of the number of people living in a particular area, to entrust the conduct of the administration of local affairs to the people themselves, individually and collectively. Where by reason of the smallness of their number it may be feasible for the village community to administer its own affairs directly and efficiently, everyone will, I think, admit that that would be the best possible method of local self-government. One of the banes of representative institutions is the danger of lack of contact between the electors and their representatives. Everybody recognises the necessity of the individual resident of a local area taking a keen and continuous interest in local affairs so that there may be constant play of healthy public opinion to guide and influence the action and policies of the elected representatives of the community. But everywhere it is found that the ideal is never attained, and so far as India is concerned, if past experience is to be of any value, one must admit that much is left to be desired. The electors leave the administration of local affairs very much to their representatives and only seem to wake up at the time of periodical elections.

The second point which to my mind is of vital importance is the fundamental difference in the needs of a village community as compared to the needs of the residents of an urban area. Local self-governing institutions of urban areas, be they large or small, are largely concerned with providing well-recognised amenities for the benefit of the residents—a good drainage system, supply of pure drinking water, good roads, efficient system of lighting, markets, slaughter houses, parks and recreation grounds. Added to all that is the duty of providing for elementary education to the children living within the limits of the municipality. With the economic condition of the residents municipal boards, as such, have no direct concern; and indeed the occupations of the residents in urban areas are so diverse that it is impossible for any municipal board to make any special endeavour for their betterment. On the other hand, the village community in a rural area, in spite of its seeming disintegration, possesses real unity. The

members are engaged only in one particular pursuit, *viz.*, agriculture, and its allied industries. Their needs in so far as amenities in the abadi itself are concerned, are few indeed. Unless a village is hopelessly congested there is plenty of fresh air and, facilities for a supply of pure water for drinking purposes either exist or can be easily arranged. Improvement and development of a village, as we understand them in the sense of an urban area, depend largely on considerations of improvement of the economic condition of the villagers, and moreover do not need any similar continuous attention. If rural development only means widening of village lanes, sinking of a few wells, and the opening of ventilators in houses, the whole task can be performed, if some funds are available, within a few months. But as I visualise it, rural development consists in a sensible and indeed considerable, increase of the wealth of the individual villager by effecting improvement in methods of production and of marketing and by the development of cottage industries. If the wealth of the village community increases I have no doubt that living conditions will also become better and amenities will follow in the wake of prosperity.

Then there is another essential consideration. For effecting improvements in the abadi of a village the machinery of a panchayat periodically elected may prove effective, because for making such improvements the continuous interest and cooperation of individual villagers is not a desideratum, but if you wish to effect considerable improvement in agriculture, if you wish to induce the villager to adopt methods for better farming so that his production may increase, and if you want him to take to organised and rational methods of marketing so that he may get proper prices for his produce, that is not definitely in my judgment a task which can be performed by a panchayat consisting of a few individuals; it will require the ready and willing and continuous personal cooperation of each single villager. You have to convince every cultivator that what is proposed is for his good, that the methods which he follows are antiquated and should be abandoned in favour of other methods; he will have to be persuaded; his assent,

and intelligent assent, will have to be won by personal appeal to him either individually or through an organisation of which he himself is a member. If we consider the problem of the village from this point of view it will, I am sure, be apparent that we should explore other methods of establishing local self-governing institutions in the rural areas, and I suggest that an efficient and practical and useful method would be the cooperative method. It is a matter of profound regret that up till now the activities of the Co-operative Department have become synonymous with the application of the cooperative principle to one particular form of activity, *viz.*, provision of cheap credit for the villager. Further even this limited activity has been carried on under the aegis of an official department. It is small wonder that cooperation has not appealed strongly during all these years to non-official workers. But things have now changed. With the advent of provincial autonomy there can be no difficulty about expanding the activities of the department on absolutely national lines and to organise the whole of the countryside by the pursuit of cooperative methods.

I may sum up in a few words what I have suggested above as the essential requisites of a self-governing organisation in the rural area; firstly, it should be an organisation of which practically every villager is a member and in which he himself takes an intelligent interest; and secondly, that organisation should look after the life of the village community as a whole and should not confine itself to the mere requirements of the abadi; *i.e.*, it should try to serve all their needs. As I said elsewhere, it should undertake to look after the villager, the resident of the village, from his cradle down to the end of his days.

I suggest that the above two essential requirements will be completely met by the organisation of multi-purpose co-operative societies in villages with a population not exceeding 12 to 15 hundred souls. I do not impose any minimum limit; but a maximum limit is necessary because the society must be so constituted as not to become unwieldy and impractical by the mere size of the number of its members.

The constitution of this multi-purpose society should be based on each family in the village as a unit. In my

opinion, the family even now is broadly considered to be a unit in the life of a village community. The villager goes by houses. If you ask him as to the population of a village, more often than not he will not give you the number of people residing in the village; he will say, "We have so many houses—100 or 150," in other words, they have so many families in the village. For the constitution of our society we should therefore treat each house or family as a unit, and each house should send one representative, or at best two if the family is a very large one, to the society. This representative will normally be the head of the family, but in rare cases where the father of the family has become too old, he may be the younger brother or a son. Anyway, the family itself will be associated directly with the society. With a maximum limit of about 200 or 250 houses or families in a village we may have a society (by 'society' I always mean a multi-purpose cooperative society) consisting of about an equal number of members; and I think there should be no difficulty in such a body being quite business-like in its methods. We know that each *biradari* has a panchayat of its own. The *biradari* meets in full strength and then deliberates and comes to conclusions and decisions. Therefore, I feel no difficulty in thinking that a village society consisting of 200 or 250 members would be able to deliberate upon matters of common interest to the villagers in every aspect of their life—economic, cultural or even political. Once such a society is formed, then the conduct of its affairs should present no difficulty. Each society will have its own rules and bye-laws and these will provide for the conduct of its affairs, the procedure at the meetings of the society, the power of the society to enforce its rules and bye-laws by expulsion or by inflicting punishment through fines and other methods.

This society should carry on all kinds of useful activities in the village. It would have separate sections, each section looking after one particular kind of work. One section would look after better farming, another after marketing, a third after village industries, a fourth after village sanitation, a fifth after the education of boys and girls, a sixth after culture and village amusements, and so

on. The society would meet once a month or at longer or shorter intervals as may be decided upon, and all questions of policy would be decided by the society itself. Each villager will in this way have an opportunity of having his say in all that concerns the improvement of the abadi of the village and about methods of agricultural production, farming and marketing and also the development of village industries. The officials of the various nation-building departments, Agriculture, Industries, Cooperative, Excise and Irrigation, will have an opportunity of coming into contact with the village community as a whole at the meetings of the society and of explaining either the policy of the Government or the better and improved methods which will lead to the improvement of the village in any particular direction. This is in itself important, because it is common experience that these officials find it exceedingly difficult to meet the village as a whole and they seldom get an opportunity to explain to or advise the villagers as to what they should do for bettering their economic condition.

The constitution of the society in this way would do away with all questions about method of election, direct or indirect, joint or separate, and there would be no canvassing also in any shape or form. The family will choose its own representative and a meeting of the society will present an opportunity for all the villagers to come together and should, I think, promote peace and harmony in the village.

For carrying out and executing its decisions the society should have a working committee. This working committee may be called a panchayat and should be elected every year. It should not be too large in numbers; at the same time it should be sufficiently large to allow every caste, creed and calling to be represented on it. As a matter of fact, to my knowledge, in numerous villages in the United Provinces such societies have been established, and it has been very pleasing to find that the members of the societies, of their own accord, voluntarily and without any outside persuasion, have elected as their working committee members of all communities, Hindus, Mussalmans and Harijans, and the panches have worked together in a cordial manner. The panchayat so elected will be answerable to the society for its

conduct. At practically every meeting of the society it will report upon the work done since the previous meeting and how the decisions of the society have been carried out. The panchayat will have no funds of its own and will not lay down policies; nor will it take decision on large questions, and I should therefore think that the objectionable features, which one sometimes finds in notified area committees or even in larger bodies, would be absent from the working of these panchayats.

The society will have funds of its own raised according to its rules and bye-laws. This is a matter of detail to be adjusted in accordance with local needs in different parts of the province, but I would broadly suggest a minimum subscription for membership payable by each member, no matter whether he is a zemindar or a tenant or a landless labourer, residing in the village. The minimum may therefore be within the means of the humblest resident of the village; or the minimum may be of two kinds—eight annas or one rupee per annum for a particular class and four annas per annum for the members of the Harijan community. But along with this minimum I would also recommend a provision in the rules and bye-laws of the society prescribing payment of an extra sum by way of subscription graduated according to the means of every member. If the member is a zemindar, he might pay a percentage of his rent-roll of the village plus the profits of his “Sir” and “Khudkasht.” It may be one or two per cent or more as the local situation may demand. Similarly in the case of a tenant, there should be a percentage of his assumed profits from cultivation. I have noticed that some recommendations have been made on the basis of the rent payable by a tenant. This would work very harshly. The burden caused thereby will be the severest on the poorest classes of the tenantry. For instance, take the case of fixed-rate tenants or occupancy tenants of old standing. The rent they pay is very low, but their economic condition, comparatively speaking, is much better than that of other tenants. Highest rents are paid by sub-tenants or statutory tenants and their economic condition is correspondingly bad and any contribution based on a percentage of rents will bear very harshly on these very poor people. I think, therefore,

that the contribution by the cultivator should be either on the basis of his assumed profits from the cultivated land or on the number of ploughs or bullocks he has or something which has direct relation to his economic condition.

In addition to these voluntary contributions I would also except that Government or district boards would make definite grants to each society in the manner which I shall discuss later. In addition to these fixed voluntary contributions from members to which I have referred above the society's bye-laws can easily provide for the imposition of fines on members if they do not observe the rules and bye-laws of the society and these fines will augment the funds of the society. Similarly there will be fines imposed by judicial panchayats to which I shall refer later.

I may also add, that from the experience that we have gained in the U.P. during the last two years of the working of these societies on a large scale, I find that the villagers have shown a perfect readiness—which has been, I must confess, an agreeable surprise to me—to contribute by special subscriptions for works of village utility. The impression that I have formed is that if you impose a tax on a villager and tell him that the proceeds of the tax will be spent in the making of canals or in building hospitals or on any other large-scale project far removed from his view or the view of the village, then he becomes suspicious and is a very unwilling paymaster; but if you tell him that the money shall be at his disposal, shall be spent by him and may be devoted to objects from which he himself will benefit in his daily life, such as village wells for drawing water for drinking purposes or for irrigation purposes, widening of village lanes, construction of by-paths and lanes connecting the village with pucca roads or construction of Panchayat-Chars, then, in spite of poverty, the villager will be prepared to contribute his mite and not only his mite but to contribute generously. Therefore, I feel certain that if we have a well-organised society functioning properly and honestly it will never feel the want of funds for any object calculated to promote the welfare and prosperity of the village.

We have formed many such societies, and particularly we have formed a very large number of better living societies

as a basis for multi-purpose cooperative societies throughout all the districts of the U.P. We have also said that for organised community life of the village it is essential that a society should have a habitation of its own where all the villagers can meet every evening and discuss matters of interest, celebrate local festivals, have public entertainments and amusements, such as music and folk dances, village sports and such other things; and have a place for holding their meetings, for the distribution of free medicines and accommodation for a Kanya Pathshala and such other objects. The response in regard to the erection of these Panchayat-Ghars has been splendid, and I should think that when these societies to which I am referring in this note, are largely formed it will be found that each will soon have its own Panchayat-Ghar. But wherever there may be a school-house existing in the village it may be convenient for the society to acquire the schoolhouse from the Education Department or the district board for use as Panchayat-Ghar. The terms can easily be agreed upon, and rooms may be added to the school-house by the society to provide for all village necessities.

I need not emphasise once again that one of the primary and essential functions of the society will be to promote better farming and better marketing. With this object in view it will arrange for the supply of improved seeds, better agricultural implements and fertilisers and, if need be, will establish a seed store of its own in the village. It will also look after better marketing of the agricultural produce of its members and also for the development of industries allied to agriculture such as dairy farming, gur and sugar making, and oil pressing. In addition, there will be other cottage industries such as spinning and weaving, wood work, tanning etc. In short, the function of the society will be to look after the interests and welfare of the village community as a whole and not in sections. It will of course require credit for the due discharge of many of its responsibilities. The primary object of the society on its credit section will be to raise funds to enable the society to carry on its functions for the promotion of better farming and better marketing. It may keep a village seed store as well as a

store of improved agricultural implements and fertilisers and even some pairs of bullocks for the use of its members and the money which may be required for this purpose it shall raise from the solvent residents of the village as well as from outside cooperative agencies such as the district and central cooperative banks. It is not necessary to dwell at greater length on this aspect of the matter.

I indeed contemplate that so long as the present zemindari system prevails the society may very well enter into some arrangement to pay the rents of its members to the zemindar in a lump sum or in instalments on receipt of a rebate from the zemindar for relieving him of all his worries and expenses in realising them from each individual tenant.

It will now easily be realised that this society, if it functions well, should prove an efficient and perfectly practical form of a local self-governing body, and it will have the great merit of carrying with it the help and co-operation of every resident in the village.

The question may arise: How are these societies to be formed and when should they begin to function? It may be said that if we wait for all the families in the village to become members of such a society on a voluntary basis we may have to wait either too long or such societies may in many cases never materialise, and we cannot afford to wait for an indefinite period. I think this difficulty can be solved by a simple and easy method. There is nothing to prevent any number of villagers forming themselves into a society of this kind. They may be a minority of the village community, but if we find that representatives of a majority of the families resident in a village have formed themselves into such a society, then we may have legislation to ensure that the decisions of such a society will be binding on non-members also. What this majority should be is a matter of detail; it may be two-thirds of all the families residing in the village or even 60 per cent. Discretion should be given to the Registrar of Cooperative Societies to ascertain before he declares that that enactment should come into force, that the society consists of the requisite majority of residents and that it is properly organised and that it may be trusted to look after the affairs of the village in a

business-like and impartial manner in the interest of the village as a whole. Not only should the decisions be binding on members and non-members alike, but any contribution which the society levies on its members should also become payable by non-members also. Non-members may, if they still persist in their attitude of non-cooperation with the society, be left to their own devices, but I dare say that when they find that they will be called upon to pay they would readily join the organisation so that they may have a voice in its deliberations and decisions. Moreover I am convinced in my own mind that in this matter example will prove infectious, and once societies are formed in the neighbourhood and when the villagers find that by forming themselves into a society they can get grants from the Government and district boards and they would acquire self-governing powers, then there will be great readiness on their part to form themselves also into a society so that they may also be the recipients of grants from the Government and district boards. Our experience in many districts in the U.P. has been that several villagers have applied to the District Rural Development Associations that their villages should also be taken into rural development zones so that the beneficent activities of the rural development association may also be commenced in their villages.

I think there should be a district-wise organisation of these societies, taking the village society as a basis. There should be a union of 25—30 societies as may be decided upon after consideration of all the circumstances. Each society should contribute to its union a fixed monthly sum which may be Re. 1 or Rs. 2 a month as the case may be. Each society should send one representative to the union, and the union would thus consist of representatives of all societies. There should be a supervisor who would be the secretary of such a union. We have already got supervisors in the Cooperative Department in charge of 25—30 co-operative societies. The duty of these supervisors will be to supervise the working of each society in the union, such supervision being mainly to see that the society's accounts are properly kept, that it is observing the rules and bye-laws and to keep a general eye on the management of affairs by

the society concerned. If he finds any irregularity his duty will be to report that to the union. All the unions in a district should be formed into a district cooperative federation, each union sending a representative to the federation. Both the union and the federation will deliberate upon matters of common interest either to the union or to the federation; they shall consider questions relating to better farming, better marketing, development of cottage industries, of common inter-union or inter-society interest and so on. Government already provides a staff of inspectors and auditors for the supervision of existing cooperative societies. I think Government should undertake the responsibility of appointing inspectors and auditors in requisite numbers for looking after these societies as they grow in numbers. That should be a burden upon the Government, while the cost on account of the salaries of the supervisors should be borne by the societies themselves or by the societies and district co-operative banks in such shares as may be decided upon.

Government grants—and district board grants—may be made directly to a union, either earmarked for each society or to be distributed by the union among the societies or to several societies for inter-society purposes. In this way Government will take an active share, and the villagers will feel that the Government is doing something for the welfare of each village.

Before I leave the aspect of organisation I may add that I contemplate that each village of any reasonable size should have its own society but there may be very small villages, no better than large hamlets, where it may be desirable to have a society for a group of two or three villages with a total population of 50 to 100 houses.

Each village society should have a secretary. This person should be selected for his outstanding zeal and spirit of service to his village community. He should be secretary both of the society and of its working committee. I feel no doubt that as time passes a man possessing the requisite ability and the requisite spirit of service would be found in every village to serve as a secretary. He may either work in an honorary or, if necessary, he may be paid a small salary to enable him to find his food and clothing. I

have spoken in many villages throughout the U.P. about this matter. I have told the people that we find in each village a lot of Sadhus, Pirs, etc., who are cheerfully supported by the villagers and if they find that if there is a man devoted to them, and who sincerely seeks to serve them but if he is poor there should be no difficulty and that they should readily feed him and clothe him for his labours. The response that I have received to such a view has been encouraging indeed.

In passing I may also note that it should be the duty of the secretary or the working committee to keep a register of all the families in the village. As a matter of fact, in one village in the Fyzabad district I found that the Secretary of the society had gone to the length of keeping a register of all the inmates of the village with full particulars as to their names, sex, age, caste and creed. A register like this kept on a province-wide scale would be of invaluable assistance in census operations.

The society, as many have done already, should enrol scouts and volunteers for purposes of social service in the village. Many villages, I have noticed, have made arrangements for the guarding of their crops and for keeping watch and ward in the village itself. For purposes of better farming and organised profitable marketing the services of the patwari should also be utilised, and I think executive instructions can be issued directing the patwaris to work as assistant or joint secretaries of these societies in so far as agricultural activities are concerned. The patwari can also render suitable assistance in other directions.

Prevention of litigation in the village should be one of the primary functions of these societies. In many villages I have heard the boast that for years no case has gone to any court, civil, revenue or criminal. The societies can encourage recourse to arbitration, but it is at the same time desirable that we should encourage the formation of small petty village courts where petty litigation not susceptible to arbitration should be decided without any expense. The establishment of a judicial panchayat for each village would be unnecessary. A single village is not to be expected to provide a sufficient volume of litigation for a judicial

panchayat. I think for this purpose a group of villages should be considered to be a unit and a judicial or adalati panchayat should be formed for such a unit. Each society of the village forming part of the unit should nominate two or three of its members to be part of this judicial panchayat. As far as possible, members of the working committee should not be nominated for this purpose; but there should be no rigid bar. If there is a man in whom the villagers have complete confidence, then he may be nominated even though he may be a member of the working committee. Supposing five societies form a unit; then there would be ten persons as members of the judicial panchayat. The rule should be that any dispute arising in any village should be referred by the Sirpanch of the judicial panchayat to a bench of three panches, preferably residing outside the village to which the disputants belong. This would ensure complete impartiality on the part of the members of the bench in deciding that particular dispute. Judicial panchayats should exercise both civil and criminal powers. Petty criminal cases should be referred to them for trial and civil cases of a simple description of a small cause court nature should also be tried by them. The procedure should be very simple and there should be power of revision in the criminal cases by the S.D.O. and in civil cases by the munsif.

This is in bare outline the scheme by which a cooperative society can function as an almost perfect local self-governing institution in the village and bring about its uplift and improvement in all possible directions. This note is not intended to be exhaustive. Many points of detail have to be thought out carefully; many gaps have to be fulfilled, and I am conscious that there is considerable room for improvement in the scheme itself; but the pivot of the whole plan is the attempt to induce every villager to take an intelligent and continuous interest in the working out of his own salvation and that of his co-villagers.

MOBILITY AND SOCIAL DEVIATION

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Trends in Town-Village Relations.

Man's physical movement and change of his social and economic status have far-reaching influences on social and economic institutions. Mobility changes the dominant interests and elements of group formation in the neighbourhood, hamlet or village. Even in a predominantly agricultural community the improvement of means of communications and transport lead to freer and more frequent contacts than before. Caste and kinship used to underlie the relative stability of many relationships and the continuance of village institutions; mobility becomes the solvent of tradition, caste and ancient social functions and institutions. As the facilities for travel, communication and intercourse break the barriers of physical and social isolation the inter-relationships of the villages change. The village or hamlet ceases to be altogether self-sufficient. An isolated clump of houses on the brink of a marsh or edge of a forest and a hamlet in a slightly elevated site on a river or a forest clearing are far less self-sufficing than a dense compact village in a spacious valley. A neighbourhood group or hamlet depends upon a larger village for daily, weekly or bi-weekly marketing, for the schooling of its children, for festivals and for other social services. A small village or hamlet may have its one-teacher or two-teacher primary school but a few of the children, if economic opportunities and distance permit, join after their primary course the High School in the larger village. A few cloth shops, a drink and a drug shop are also here, which are not to be found in a small village or hamlet, which, however, usually possesses a tiny grocery shop selling such daily necessities on the spot as salt, sugar, matches, mustard and cocoanut oil,

kerosene and tobacco. A hamlet or even a large village inhabited only by the inferior castes, which have a low standard of living, may not have a grocery shop; while a few families of the higher castes or the position of a village at the cross-roads of cart traffic are enough to establish a successful shop attracting villagers from the rural territory. Often the grocer buys articles or obtains these as advance from the big grocery shop in the larger village. To this shop in the larger village the villagers from the surrounding area would resort occasionally for their larger purchases. But they are frequent visitors to the daily or periodical market. Here they would go to sell the agricultural produce directly to consumers or to money-lenders and itinerant grain-dealers who are agents of whole-sale dealers and exporting firms of the town and who resort to the *mandi* for collecting the entire produce of the region. Weavers also come here to sell cloths on barter or supply them to yarn-dealers from whom they had obtained advances of yarn or cash. A few itinerant shop-keepers and hawkers are also here to advertise trinkets for the village women and children. On the whole in the pedestrian and bullock-cart regime the economic and social services of the larger village embrace a circle with about a 10 miles diameter, comprising from three to eight villages in the crowded areas of the Ganges plain. With metalled instead of dusty un-metalled roads the marketing and merchandising service extends, it may be, to even twice the area of the former circle. Villages also change their service relations through custom, credit and personal feeling of loyalty to men and institutions prevent easy and frequent change. Like the temple and its associated fairs and festivals of old High School is now found to be one of the most important factors in hamlet and village relationships. Now the popularity of the High School depends largely upon examination results. The school service area of a larger village fluctuates the proportion of tuition pupils from particular hamlets in some measure increasing or diminishing with the number of passes in the Matriculation examination. But the marketing, merchandising and banking service area of the larger village is more constant; hamlets and villages continue to use it though such continuity is challeng-

ed by the process of specialisation and freedom of choice made possible by greater ease of travel and communication. Facility of contacts and mobility account for the specialisation of economic services even of hamlets and small villages, some of which become celebrated for certain artistic crafts and cottage industries, for instance, whose wares are sent out to the entire rural territory and the *bazars* of the larger village. On the other hand, the same process may lead to the sinking of a larger village to a hamlet status. Specialisation leads as much to the improvement of status of a hamlet or village as to its decline in the era of quick travel and communication. Further, one type of social or economic activity and form of service helps another. Thus the larger village shows a combination of activities, economic, social and educational, for which it enjoys the cumulative advantages of position and tradition. It develops into what the American sociologist Galpin aptly describes as a 'rurban centre.'

Rurban centres, taking the form of large villages, country-towns and even cities of varying size and degree of completeness, send out new ideas, engender new wants and desires among folks of village and hamlet and change buying and social habits. New habits seek more and larger service and coordination centres. This, however, does not mean the substitution or disintegration of hamlets and villages and their service institutions. Between these and the country-towns there is give and take based on specialisation which builds up the larger rural community. The ecological organisation is woven out of the threads of division of labour, specialisation, inter-dependence and coordination.

A cluster of homesteads, a hamlet, a village, a country-town and city each has its own economic convenience and opportunities. Its size, type of activity and form of service are related to its ecologic base. But the ecological framework links the hamlet, village country-town and city in a network of service relationships and institutions. Because of this the community of hamlet, village and country-town plays a significant rôle in the economic system and culture. But this natural evolution of functions and organic relationships between the hamlet, village and city is rudely interfered with

by the sudden spread of industrialisation and rise of industrial towns. The latter remain alien to, and even destructive of, the primary neighbourhood and functional groups and interweaving of their relations articulating themselves into the larger community of town and country. With their quick rise into importance and size these new industrial towns, emerging here and there in the midst of rural civilisation, altogether obliterate the natural wider movement of inter-articulation and inter-lacing of service relations that has been taking place here on a locality as well as a function or interest basis. The nature and functions of an industrial town, its mobility and group alignments are far different from those of a country-town or a 'rurban' centre, through which rural society seeks larger integrations of services and interests in the wider drama of national life.

A Rurban Centre, an Over-Grown Community.

The majority of urban dwellers in the world live in rurban centres taking the form of country-towns which have hardly developed industries but which subserve the most important function of collecting the agricultural produce from the entire region for distribution and of directing and co-ordinating the sale of imports and manufactured goods. Yet such a town also possesses besides its financial and shopping district its civic centre, temple or assembly hall, its school and recreation ground. Physical and social mobility is not much manifest here. Agriculture and contact with the land still dominate types of human relationships and human interactions. Neighbourhood feelings, friendliness and the community spirit are still strong, though these tend to be restricted to separate population groups characterised by distinct modes of culture and manners of living. Though the rurban centre, the country-town or the small city exhibit on the whole the ecological and social organisation of an overgrown rural community, the demarcation between the rich man and the poor man's residential area appears and this widens the social distances between people which may have their origin in race, colour, language and gradation of occupations. Many Eastern towns have sharply differentiated natural areas or districts, each inhabited by a group of

kindred, clan, caste or community with its distinctive culture and folk ways, its own municipal institutions and means of social control. The social distance as between the East side and the West End side in the metropolises of Europe and America has, however, lost its sharpness here; while there are community festivals, civic processions and recreations which weld together the divergent population groups and mitigate racial or cultural differences. With increase of population, however, the rural centre or the small country-town shows its areas of deterioration. There is, first, congestion in the retail shopping area, which expands on all sides. This encroaches upon the central square of the town with its temple, tank and garden, its well and cluster of trees offering shade for the cattle, the children's playground and the place of community rest and recreation. With the attenuation and denudation of these, the community life of the city suffers and social distance widens between the various population groups which live in their miniature cultural universes.

' The Liminal Town '

The transition from the village to an industrial town, however, is much quicker, sharper and more socially disastrous and nowhere more so than in the East. Many industrial towns in the East are mushroom growths in a period too brief to admit of smooth adaptation of service relations, groups and institutions. Here is a type of specialisation based on a one-sided exploitation of the rural territory as evidenced by the wholesale exportation of food, raw materials and populations from the villages and hamlets, which do not obtain the countervailing services of coordinating economic and cultural agencies. In the present competitive situation the villages are simply victimised, depleted of their food, raw materials, youth and culture. Nor does the industrial town exhibit normal social relations and features of group organisation, characteristic of rural centres which, as they reorganise and readjust their methods to expanding forms of contact and control, build, on the older foundations of services, primary groups and institutions of villages and hamlets. In certain highly and quickly

industrialised regions along a river or railway track, characterised both by high physical mobility and heterogeneity of social composition, we come across those hybrid industrial towns, which may be suitably designated as "Liminal towns." The industrial town in India is not a lineal descendant of a commercial or pilgrimage town of the past. Its ecological and social organisation is far different from that of any town in the past. On a narrow ecological foundation the liminal town rears itself, shoots up in size and becomes feverishly active, attracting immigrant workers from distant provinces. In Bengal the jute-mill town has come into existence as a result of the province's monopoly of jute and has thriven mightily on this slender economic base. The liminal town is one which is superimposed from without on the region—in this case by foreign capital and enterprise—and lives apart from the traditions and culture of the rural community. It neither derives its nourishment from its own culture nor can it be assimilated into any new cultural pattern. Like the oil or mining town, hectic and expansive so long as coal, oil or any other mineral resources are not exhausted in the seams, the jute-mill town does not stop growing as long as jute remains a prized monopoly and the industry thrives, a cancerous growth on the body politic. Economic instability is increased by the specialisation of the city in one industry and social instability by the immigration of a heterogeneous working-class population. A haphazard, pell-mell growth by a sudden influx of foreign immigrants does not permit even that customary division of the liminal town into *muhallas* or natural areas, inhabited by separate castes and communities as in the small conservative country-towns. A special difficulty sometimes arises in the case of certain immigrant workers such as the Muhammedans who find it difficult to obtain accommodation in *bustis* owned by Hindu landlords. Thus they are constantly on the move from hut to hut, and from one mill-town to another. Physical and social mobility here are phenomenal; it proves disastrous to the family and disintegrates the traditional means of social control resulting in the most profound personal and social deterioration.

An Habitation of Fluid Immigrant Population.

Statistics are not available to measure mobility directly but the excessive number of emigrants, paucity of females and predominance of males of the productive age indicate very high physical mobility. A reference to these mill-towns, which are all mushroom growth, will be of great demographical and ecological interest in this connection. Between 1911 and 1921, the mill-town of Bhadreswar showed a population increase approximately of 100 per cent, Titagarh showed 200 per cent and Kharagpur 400 per cent; between 1921 and 1931, Kharagpur showed an increase of 130 per cent, Bansberia 123, Halisahar 129, Kanchrapara 45, Kamarhati 32, and Bhatpara 29 per cent. The smaller increases during the last decade were the result of the acute and prolonged depression which almost overwhelmed the jute industry. Of these towns Kharagpur and Kanchrapara are new railway settlements. The sudden and phenomenal increase of population in these liminal towns has led to a chronic house famine and terrible congestion. A 'house' is defined for census purposes as a building inhabited by one family and in labour quarters in the towns as a single room or hut occupied by working men. The number of inhabited houses per sq. mile is the largest in these liminal towns:—

Number of inhabited houses per sq. mile

Rural areas in Bengal	...	.	116
Towns and cities aggregate	...	...	1,304
Cities aggregate	.	...	4,503
Tittagarh	...	..	14,105
Serampore	...	...	7,656
Howrah	...	...	5,797
Naihati	.	..	5,639
Bhatpara	..	...	4,920
Rishra-Konnagar	...		3,994
Champdani	...	..	3,468
Garulia	...	.	3,173
Bhadreswar	.	..	3,166

Baranagar	...	...	...	3,110
Kharagpur Railway Settlement				2,214
Kamarhati	..	...	...	2,020
Kanchrapara	...	...	..	1,271

These are all liminal towns which have now become no more than the temporary habitations of immigrant workers coming from outside the province. The following table shows the remarkable difference in the ratios of persons born outside the province, in country-towns in Bengal, as compared with the liminal mill towns in the metropolitan area¹:—

Number per mile

Inhabitants of:—	Born in the same district	Born in other parts of Bengal	Born outside the Province
Mill-towns	209	96	695
Country-towns	814	106	80

In the liminal mill-towns only about one-fifth of the total population is born in the area surrounding the towns, whereas only 8 per cent of the people of the country-towns are born outside Bengal. In Titagarh, a compact manufacturing area, no less than 90 per cent of the inhabitants are born outside Bengal. In Bhatpara 79 per cent are born outside Bengal. In Champdani and Bhadreswar 70 per cent, in Kharagpur, Naihati and Rishra-Konnagar more than 50 per cent and in Bally, Baranagar, Budge Budge, Howrah and Serampore more than 33 per cent are born outside Bengal. The proportion of immigrants in Calcutta just falls short of one-third, being 31·9 per cent. Although a few immigrant workers have children with them who were born since they emigrated practically none of them have settled down. The majority, estimated at 75 to 85 per cent of the workers, are of the floating type, revisiting their village homes once a year or once in eight months and absenting themselves for couple of months or so.

¹ Royal Commission on Labour in India, Evidence, Vol. V, p. 10.

Predominance of Single Adult Males.

The following table gives the number of females per 1000 males in the different classes of towns and in the countryside:—

Number of females per thousand males

	187 ²	1881	1891	1901	1911	1921	1931
The average country-town	977	1033	910	965	868	816	787
The average industrial town	671	671	619	520	529	530	526
Calcutta City	493	500	526	507	475	470	469
Rural areas	1,007	1,006	990	982	971	961	955

The above table shows a gradual decline in the number of females in the rural areas of Bengal but the greatest disparity is in the industrial areas where the ratio has been markedly declining since 1882. Population in the small liminal towns exhibits the predominance of single male workers who have left their families behind and live unnatural existence, exposed to the greatest temptations, intemperance and immorality. This in its turn discourages men from bringing their women folk to the towns with them. The age and sex composition of population in the industrial and country towns is also markedly divergent.

Number per 1000 males at certain age periods

	0—10		10—20		20—40		40 and over	
	Males	Females	Males	Females	Males	Females	Males	Females
The average country-town	216	204	202	166	380	269	202	162
The average industrial town	148	130	184	110	480	189	188	96
Calcutta ...	131	111	180	98	500	172	189	88
Bengal ...	285	273	207	205	331	301	177	145

In the industrial towns there is a much larger percentage of males in the age-group 20—40 and much smaller percentage of females than in the average country-towns or in the rural areas, while the proportion of the minors is also much smaller. The proportion of females to males is considerably lower in industrial towns compared with the country-towns and the rest of the Province both in the age-group 20—40 and beyond. The largest percentage of females to males is reached in this age-group in Calcutta. Here to the persistent demand for only male labour and chronic house famine are added two other factors. Calcutta has a large student population, while traders, merchants and men belonging to the professions visit the city only for a few days and new-comers never bring their families at once. The low percentage of females after 40 undoubtedly proves that women are out of place in any industrial town. Thus the table corroborates the deduction that the industrial towns are mostly peopled by temporary residents and that where they have their families with them they are sent away to village homes as early as possible.²

Absenteeism and Excessive Mobility.

The marked difference in the constitution of the population between the industrial and non-industrial areas in Bengal manifests the excessive mobility of the former. Such excessive mobility is the cause of frequent absenteeism which is unknown in any advanced industrial country in the West on such a scale. A very big proportion of immigrant labour at one period of the year or another leaves for its own home districts to be replaced temporarily by substitutes. This applies particularly to the mills north of Calcutta where the labour is very largely imported from Bihar and Orissa, the United Provinces and Madras. In the mills on the south of Calcutta a very considerable proportion of labour is recruited from the surrounding agricultural districts. The workers come in from the villages in the morning and return at night often cultivating their own land in their spare

² Census Report of Bengal, 1931, p. 82.

time. The following table gives the statistics of absenteeism in 45 jute mills in Bengal:—

Month	Number of days worked		Employed at the beginning of period	Persons granted sick leave	Average number of working days lost per person
	Total	Average			
May, 1929	740	20·5	1,84,090	6,638	7·5
June, 1929	605	18·5	1,83,474	6,650	7·5
July, 1929	857	23·8	1,85,018	6,666	8·3
August, 1929	571	15·9	1,84,502	5,132	8·3
September, 1929	692	19·3	1,82,273	5,646	7·9
October, 1929	749	20·8	1,82,898	5,553	8·1

The labour turnover (i.e., actual changes in the composition of total labour staff) have been estimated at about 12½ per cent per month at the Angus jute works, an important representative concern, so that the average duration of employment is 8 months.

Mobility is at once the cause and effect of the peculiar age and sex composition of the new industrial town. The rate of mobility and tempo of life of the community are enhanced by the congregation of young adults and less females in the industrial town. This affects social life and relationships. Excessive mobility hinders the functioning of the joint family, caste and *Panchayat* organisation, which represent the traditional forms of social government and disintegrates the family and the firmly integrated social and moral standards. The Panchayat or Council of the Five is the ubiquitous implement of social government in India originating in the periodical redistribution of holdings and collective management of water which prevailed among her rice-growing, aboriginal villagers. But the Panchayat hardly regulates the behaviour of mill-hands in the new industrial towns. Nor do neighbourhood relationships develop where homes are not owned and so frequently changed. In the Bengal mill-town the worker is neither a caste-man nor neighbour; often he is not even a family man

but is living an enforced single life or entering into casual sex alliances; he is dissociated in any case from the stable groups and controls which integrate society. Everywhere the break-down of family, caste, Panchayat and neighbourhood controls tends to promote pathological behaviour and social disorganisation.

Personal Disorganisation.

In India the transition from the rural to urban economy, from handicraft production to the machine industry, concomitant with the growth of railways, and industrial towns has been too rapid to permit a slow and gradual adaptation of the habits and attitudes of the people. Such changes have accompanied a continuous cityward drift of population, the disruption of the joint family and caste control and the unsettlement of status and custom, throwing the individual, so to speak, out of doors to the fury of economic forces. It is the failure of mental and social adaptation that accounts for the prevalence and increase among the urban middle classes in India of such diseases as dyspepsia, diabetes, tuberculosis, hysteria and insanity and also of suicide. The exodus from the village due to unremunerative agriculture, indebtedness and multiplication of the landless class as well as decay of cottage industries, and the overcrowding in industrial cities and towns with inadequate opportunities of employment of women labour, have introduced new problems of moral and social deterioration unknown before. Intemperance and prostitution in all our industrial cities are alike the results of a striking excess of males over females, overcrowding in slums, casual employment, physical mobility and mental restlessness.

When labourers flock to the *bustis* and *bazaars* honeycombed with single huts, in which there is little privacy, where they cannot live with their families and where there is no segregation between the sexes, immorality naturally becomes common. Some who have left behind their families in village homes marry again or become addicted to vice and settle down in the *busti*. Prostitution is common in the industrial town since social ties and formal and institutional controls that function in the relatively static rural community

have disappeared. Most of the industrial workers of India are recruited from the lower castes. In the industrial towns in Bengal nearly half of the women workers belong to the depressed castes. Now, women from such castes do not maintain high standards of morality. The disparity between the proportions of the sexes also indirectly encourages drunkenness, lawlessness, vice and prostitution. In one of the mill-towns of Hooghly district, Bengal, out of the 300 women immigrant workers, one in three admitted being a prostitute; among the people born in Hooghly, one-third of the families worked in the mills, of whom one in every four professed to be prostitute. As a matter of fact in many *bustis*, and *bazars* in the mill areas there is practically open prostitution especially on off-days and holidays.

In the new liminal towns and in Calcutta the prostitute is, indeed, more in evidence than her more virtuous sister, the woman worker. She is often seen in the street by night and in some quarters fairly in herds. Along with the congested slums, taverns, tea and coffee shops, she seems to be regarded as being as essential to existence as industrialism and the bitter loneliness and coarse relaxation of an alien urban life.

Excessive mobility means anonymity and licence for the individual who easily escapes from the traditional social disciplinary forces while at the same time is exposed to intense stimulation, adventure and excitement. It increases the eat-drink-and-be-merry attitude and puts a premium on coarse relaxation such as drinking, gambling and sensual enjoyment.

The liminal town is a town for the most part of the single man who moves from one hut to another with an unusual frequency uprooting him from all objects, habits and attitudes which formerly rooted him to the soil, home and community in his traditional cultural *milieu*.

Rehabilitation of Community Organisation.

The entire trend of social and economic forces in India is bringing about both social and individual crisis in our new cities and industrial towns where the disintegration of family, caste and community habits, has made it more and

more difficult for many individuals to construct a new life-organisation out of the remnants of the old. These become the unfortunate victims of social disorganisation: the thieves, the paupers, the vagabonds, the prostitutes, who have lost their vital contact with society. In a highly mobile area where contacts are numerous but the absence of education prevents the development of secondary relationships of a stable kind, the rehabilitation of the ancient system of caste government often hinders disorganisation and serves as an inevitable device for effecting accommodation. The primary group here restores the ecological pattern of the village in the slum of the industrial town. Social opinion develops and the new habitat takes on the appearance of stability.

In a few industrial towns we find that the migrant workers live with their castemen in separate *muhallas* and hamlets, importing into the slums the caste *panchayat* which acts as a stable socially defining organisation. It is the *panchayat* which warns a girl of loose morals, brings to book a man of evil reputation, settles a dispute with an usurious moneylender and organises pious story-telling, song and music in many a moonlit night of well-earned rest. The castemen bring also their gods into slumdom: Ramji, Hanuman, Ganesh and the rest. Thus the validity of old norms is re-established in an environment of social unsettlement and disorganisation, helping individuals to recover the old verities or re-orient their original tenets of life-organisation to new conditions. Social workers have always found the *panchayat* useful in organising co-operative credit, housing and industrial societies and arranging for adult education, entertainment and recreation in the slum areas.

The essence of social welfare is to fight anti-social attitudes and behaviour through the re-establishment of a stable community organisation, which may re-define the social situation, and gradually rebuild the life-organisation for persons who have suffered loss of status. Complete loss of status or caste is a paralysing crisis for the individual whether a pauper, a criminal, a prostitute, a person, who attempts suicide or one who escapes normal contacts by developing the delusions of insanity. The way of recovery lies in each case through the re-establishment of stable

social contacts with adequate social rules and definitions, which may give the heartening support for a satisfactory re-orientation of the person's life-organisation. An ostracised girl, who has made a mis-step, flees from her village and tries to get even with her relations by drink and vice in the anonymity of the city. A boy becomes a thief or cocaine-smuggler because his mother has disgraced herself, or his brothers do not treat him well at home. A political offender who has betrayed his companions commits suicide. A woman whose eccentricities are ridiculed by her set seeks refuge from reality in hallucinations. In each case the sympathy and encouragement of the group can restore the sense of social values and bring back the rebel.

By re-organising *panchayats* or re-creating them where they do not exist so that these may revive essential group attitudes and standards in the new environment, much of social deterioration and individual disorganisation has been prevented in the Indian towns. This is an illustration how the essential patterns of social integration which are a part of cultural heritage in the village may smooth the individual's spatial adjustment to his new environment. By piecing together the broken fragments of community life and inspiring community cooperation, the organisation of the urban area into neighbourhoods, castes and functional groups may secure physical and social stability and unity which were once thought obtainable only in simple, self-sufficient rural society.

THE NEED FOR THE DEVELOPMENT OF RESEARCH WORK IN AGRICULTURAL ECONOMICS IN INDIA

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With the development of modern industry, means of communication, money economy, and of inter-regional and international trade, Agriculture has been brought into the commercial system of the world. Farming today is a business and in it, like most of the industrial concerns, competition is the order of the day. In various parts of the world, agriculture as a whole competes with other industries and occupations for labour and capital; various farm products compete with one another for land, labour and capital; whilst farmers have keen competition among themselves. The severity of this competition is increasing every day as the farmer's market is extending in time and space through scientific discoveries and inventions. Every change resulting from research in physical and biological sciences, like improvement in the efficiency of plants and animals, savings resulting from their better methods of production and protection, elimination of waste, and utilization of agricultural products, etc., has a direct bearing on the economic organization of production from land. Various inventions and discoveries, however, do not come to be known all at once and at the same time in all parts of the world; they are first adopted in the countries of their origin and hence such countries have an advantage over the others. Similarly in any country, he who makes an early application of a scientific discovery, derives the greatest benefit.

This competitive nature of agriculture has made production from land an extremely complex process involving numerous forces and conditions, acting, reacting and interacting on one another. Some of these forces are physical,

some are biological, and some are economic. It is the function of the physical and biological sciences to study the first two sets of forces and it is the duty of an economist to make clear the economic forces with which the farmer has to deal. The physicists and the biologists show us how to obtain high yields of plant and animal products of superior quality, how to protect machinery of production from ravages of pests and diseases, and how to eliminate wastage of agricultural products by explaining "whys", such as, why soil tillage is necessary for crop production, why the same soil cannot produce large yields of the same crop year after year, and why a manure of a particular chemical composition is valuable for an exhausted soil, etc. But the economist on the other hand has to direct and study the financial results of various methods and systems of production with a view to investigating the general policy of farm organization, such as, "what to produce" and "how much of each to produce" so as to get maximum profit under a given set of conditions.

No definite line of demarcation can be drawn between the economic problems and the technical problems. Most problems have both sides. Technical studies show what is possible while economic studies indicate what is expedient. The former shows what land, labour and capital will produce if used in certain ways, while the latter will indicate how they should be used to secure best financial results.

During the last century, as a result of scientific discoveries, the problem of "what to produce" has become very complicated. From the standpoint of suitability to soil and climate there are now many alternatives with a wide range of choice. Wheat, gram, barley; cotton, maize, sugarcane, tobacco, "jowar" (Great millet), "bajra" (Bulamsh or spiked millet); groundnut, "moth" (*Phaseolus aconitifolius*), "mash" (*Phaseolus sodiatus*), "mung" (*Phaseolus mungo*); "Senji" (*melliotus parviflora*), "shaftal" (*Trifolium resupinatum*), "berseem" (*Trifolium alexandrinum*), apples, plums, peaches; oranges, maltas, lemons; potatoes, turnips, radish, carrot; gourd, melons, lady's finger, brinjal; and all other agricultural products have to be produced where the physical conditions are suitable, but

within these limits economic forces like supply and demand of labour, supply and demand of capital, marketing facilities including state control of prices through tariffs, duties, subsidies, quotas and currency policies, etc., become prime factors in determining "what to produce" at a particular time and place. In order to obtain maximum profits from farm business it is necessary to consider how the choice of various crops affect the farm profits. Not only that, it is also very important to know how much of each of these enterprises be undertaken so as to run the farm efficiently. Should the farmer aim at maximum outturns as advised by technical experts or should he aim at something less? If the latter, how much less? Such questions are to a great extent outside the domain of the physicists and biologists.

In the long run, in the process of production from land, we have to fight against the economic law of Diminishing Returns. Any attempt to wring out the last "seer" of grain, sugar or fibre, cannot be justified unless maximum production is accompanied by maximum financial gain. It is always the economic factor that controls production over a long period of time.

It must, however, be noted that the problems of most profitable choice and most profitable combination of enterprises cannot be settled easily and once for all. As the economic conditions are always changing, conclusions which are rated at one time and place cannot necessarily hold good at another time and space; often only temporary and local solutions are possible. The economic problem of the farm is, therefore, one of continuous adjustment of the farmer's activities to changing conditions. It is the most important duty of the economist to elucidate and measure the economic forces and draw practical conclusions which may lead to the realization of maximum net profit to the farming community.

In almost all civilized countries of the world, agricultural economist is a great social force and a new type of farm management advisory service has become a part of the Government programme of agricultural research and advisory work.

In U.S.A. the Bureau of Agricultural Economics, the U.S.D.A. Extension Staff and the State Agricultural Stations and Colleges independently or in close co-operation with each other carry on the economic advisory work. Since the size of agricultural units in that country is large, considerable stress is laid on the farm management problems of an individual farmer. The principal centres of early development were U.S.D.A. and the State Colleges of the Universities of Minnesota, Cornell, Wisconsin and Illinois. The first systematic study was started as early as in 1902 by the Minnesota Agricultural Station. Now almost all states have necessary funds for research and advisory services in this connection.

In Great Britain this work originated with the establishment of Agricultural Economic Research Institute at Oxford in 1913, of an Agricultural Costings Committee under the auspices of the British Government between 1918 and 1920, and of the advisory service in Agricultural Economics after 1922. The Agricultural Costings Committee arose out of the exigencies of war; its activities were expected to yield data of value for the purpose of fixing prices of agricultural produce. The work at present is being conducted by the Oxford Institute and the advisory officers attached to various Universities and Colleges, who collect and study data based on farm records so as to give sound and effective advice to farmers and the State in economic questions affecting agriculture.

On the continent of Europe this work has developed under the supervision of central organizations or societies with a view to assisting the farming community in general. The first attempt to farm management may be attributed to the Howard Agency in Germany which was established in 1872. Now in this country this work is carried on under the control of Agricultural Council (Landwirtschaftsrat) by Book-keeping offices affiliated to this department by their Union (Reichsverband). In Switzerland the work started with the establishment of a farm accountancy centre in 1900 and now the data are collected, analysed and published by the Division of Accounting of the Swiss Farmers' Union. It is used both for teaching and advisory services. In

Denmark this work started in 1910. The main work of the collection of data is carried on by a number of local accounting associations, whereas the final analysis and publication of results is done by the Bureau of Agricultural Economics and Farm Management (Det Land konomiske Driftsbureau). In Czechoslovakia, the Institute of Agricultural Accounting and Rural Economy has done much towards the promotion of accounting practices amongst farmers of this country.

In the rest of the world, with the exception of only a few countries in Europe and Asia, the economic advisory service is still undeveloped. In India this research work is still in its infancy. Statistically significant data as regards profitability of farming, relative profitability of different sizes and types of farms, etc., are almost lacking. Only in a few provinces efforts have been made to study the economic problems relating to agriculture. The need for the development of this work on a large scale is, however, apparent. With the development of rail, road and other means of communication, the self-sufficiency of our agricultural units is breaking up and our countryside is fast changing and is becoming more and more connected with the outside world. The money crops are taking an important place in our agriculture and considerable advance has been made in the Scientific Research and in technology and in their application to the agricultural industry. The science of plant genetics has, in many cases, effectively obtained plants which give higher production, yield better quality of products, are more resistant to diseases than their prototypes grown before or are being grown at present. Almost innumerable varieties of wheat, cotton, sugarcane, rice, oilseeds, fodder crops, etc., have been introduced which represent improvements over their predecessors.

The high-yielding and rust-resisting varieties of wheat, cottons of longer and finer staple, sugarcane with higher sucrose contents and varying times of ripening, and fruits of better colour and taste and higher-keeping quality are all results of hard labour of research workers in the biological sciences. Rapid strides have also been made in the methods of plant protection from diseases and pests which cause enormous losses. Researches as regards life-history of

insect pests and diseases and effectiveness of insecticides and fungicides have yielded results of fundamental character and far-reaching importance.

Biological research has also made contribution in the utilization of plant materials. The ensiling of fodder crops, compost making of waste products at the farms, the preservation of fruits and vegetables, etc., are all its results. Notable advances have also been made in animal nutrition, breeding and diseases.

While these are the examples of improvements which yield a greater absolute produce without an equivalent increase of labour, those which have not the power of increasing the produce, but have that of diminishing the labour and expenses have also played an important part. Among these may be included improved implements and machinery, mechanical power, good roads and means of communication and better lay-out of farms or consolidation of holdings.

The only weakness in our research programme seems to be that of the absence of the research work in agricultural economics. Under our rapidly changing economic conditions the knowledge of the business side of farming is also of great importance. At present no staff exists for this purpose. There are a few Boards of Economic Inquiry in some provinces, but the main objects of these institutions do not include research in the economics of farm management or the internal management of the farm affecting the profits of those engaged in it. Researches in the external factors which determine the course of production and the prices of agricultural products are also needed.

Probably the best way to start work would be to appoint Agricultural Economists with necessary staff under various Provincial Departments of Agriculture. It will be the function of these officers to study the economic facts that underlie the farm business and to assist the State in the solution of some of our economic problems by supplying reliable and adequate facts and figures.

In a large part of our country, luckily, we have got an elaborate system of collecting general agricultural statistics, which deal with area, production, prices of agricultural

products, number of livestock, inland trade, foreign imports and exports, etc. These statistics are very useful in many ways for in their absence no general knowledge of our agriculture could exist. But the trouble with these figures is that they are published in totals or averages of political divisions whereas farming types naturally group themselves by soil, climatic and marketing conditions. Furthermore such information of general character is insufficient for the consideration of our complex economic problems. It is, therefore, of great importance that we must first carry out a systematic and detailed examination of the statistics collected and their system of collection, compilation and presentation in the final forms. With only a little amount of extra trouble and expense a large amount of useful material will be available.

To get an intimate knowledge of what farming is, as it has developed under different soil and climatic conditions, requires a close study of resources and conditions under which production is carried on. For this purpose, the country may first be divided into economic zones and different villages, one in each zone, or 1 in 5 miles or 1 in 10 miles or 1 in 15 miles from a large town, may then be surveyed. This will indicate the general agricultural conditions and problems of various regions but will not provide material for research and advisory work. For this purpose we shall have to resort to some simple system of farm accounting or record keeping on some selected agricultural units. In this task, close co-operation between the Agricultural Economist and the District Agricultural Advisory Staff will be needed. To begin with the farms to be studied will be selected by the Agricultural Economist and his staff in consultation with the local authorities, but during the year the supervision of recording work will most economically be carried out by the District Staff whose duty is to tour in the area under their jurisdiction throughout the year and to give advice to the farmers on all matters concerning the technical and economic side of agricultural production. Whenever in connection with their usual duties, these officers visit a village, they may as well check the records if they are maintained by any farmer in that village. Occasional

surprise visits will, of course, be made by the Agricultural Economist or his staff. At the close of the year accounts will be brought, compiled and analysed.

The data yielded by this method will be useful, not only for the agricultural economist himself but also for various experts and specialists engaged in the improvement of the technical side of agricultural production. It is obvious that while the work of various specialists, e.g., Chemist, Botanist, Entomologist, etc., runs parallel, the work of an Economist runs cross-wise the whole field. This information will be of considerable help to the staff engaged in the advisory work. It will also provide a reliable material to teachers in Agricultural Colleges.

Reliable and adequate data on farm returns and profits, etc., will also serve as a useful guide in adopting public policies which usually involve a great expense. In the consideration of the extent of relief in land revenue to the agriculturists (such as is being determined now by the Punjab Government) modification or changes of assessment rates, the change in the contract status between the landlord and the tenant (such as is facing us in Bengal, U.P., Punjab and several other Provinces), between the cultivators and the labourers, between the debtors and creditors; utilization of land, and the development of social works, like the rail and road building, etc., unless action taken is sound, it may lead to very grave results.

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SOME METHODS OF RESEARCH IN FARM ECONOMICS

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Introduction.

In the study of a problem, the first step is to collect data which are or ought to be "facts." And by this we mean "experiences which we cannot altogether fashion as we please to suit our convenience or our own sense of what is fitting or desirable, but have largely to accept as they come to us." The next step is to register the facts carefully, classify them, formulate hypotheses, test the tentative conclusions and finally reduce them to simple and easily intelligible terms. The success of an investigation would depend upon the accuracy of data and their correct analysis and interpretation. In other words it means that a scientific research worker takes more pains than the man in the street does to get at a large body of facts, in systematising and analyzing these facts, and in drawing inferences from them. In all these, he observes a certain logical process which we term as a "scientific method." When the processes of gathering facts, sifting, classifying and analyzing them are observed closely, it will be found that they take different forms. These forms are called different 'methods.'

The classification of these methods by various authorities varies a good deal. Some classify them as Deductive and Inductive, some as qualitative and quantitative, some as mathematical and empirical, explanatory and verificatory, some as analogy, case, informal statistical, formal statistical, and experimental and some likewise as Historical, Geographical and non-geographical. There are, however, three well recognized ways by which an economic investigator in agriculture can collect the material required to study a problem. First, it may be obtained by keeping

a careful record of the details of farm work and the business transactions of the farms selected for this purpose. Second, by interviewing the farmers who supply it from their memory or from such desultory records as may be available with them. Third, a questionnaire may be sent by mail to the farmers concerned in order to obtain the data. These methods are known as "accounting," "the farm business surveys" and the "mailed Questionnaire" respectively. Depending upon the details of accounts kept, the "accounting" method has three main subdivisions which are called as "Full cost accounting," "Single enterprise accounting" and the "Financial accounting." Very often all these methods are grouped into three classes, only, *viz.*, "Cost accounting," "Financial accounting," and "Surveys," the other two, *i.e.*, "Single enterprise accounting" and "Questionnaire" being taken as supplementary to these methods. In addition to these basal methods, there are some intermediate methods (classified financial accounting, inventory, simple diary, physical records, etc.) which, however, have some features of the main methods and need not therefore, be mentioned separately.

Full Cost Accounting.—The full cost accounting involves the analysis of all expenditure and its distribution as precisely as possible amongst the ultimate farm products for sale, so as to find out the costs, returns, and profits on each unit of production. In order to have a complete set of cost accounting, four types of records are necessary—the inventory; financial record of receipts and expenses; physical records of production and materials used in each unit of production; and a complete record of labour of manual, animal, and mechanical power for each enterprise. At the end of the year the accounts are closed and cost of production of each product is determined.

This system of accounts has been greatly developed in Great Britain and U.S.A. with many objectives. Broadly speaking, they can all be grouped under three headings:—
(1) Price controlling objectives; (2) Educational uses; and
(3) Stimulating farm management efficiency. Besides determination of cost and price relationships and the fixation of price by legislative and administrative action, the first

group includes the determination of the extent of other measures of protection for agriculture such as those connected with taxation, tariffs, duties, subsidies, railway freights, etc. In the second group, *i.e.*, in the educational uses, we may include the usefulness of "cost" information to the farmers or their representative bodies for the purpose of creating better understanding between the producers and the consumers, comparison of agricultural incomes and costs with other industries, the educational value of these data to the prospective farmers, development of practical methods of farm book-keeping, the provision of practical data on farm management to agricultural schools and colleges, and the development of literature on farm management, and an effective class of teachers in this subject. Under the third purpose, *i.e.*, increasing farm management efficiency, numerous sub-headings may be made, but nearly all of them centre round the determination of relative profitableness of different enterprises of the farm business, relative economy of different classes of equipment, different operations, and practices and methods of disposal of produce, organization and utilization of labour and feeds, and the establishment of efficiency standards or measures.

The usefulness of cost data in various fields is often questioned and the limitations of this method are widely recognized, the chief among them being, the difficulty of ascertaining the accurate costs, disagreement amongst investigators as regards elements of costs and principles of accounting, and the high cost and heavy work connected with accounting and record keeping which limit costing studies to a small number of farms only.

Since many elements in the cost of production cannot be ascertained directly, absolute accuracy of these figures is not ascertainable. In the evaluation of labour and materials required to produce a commodity, a large degree of estimation is needed. Most of the farm products are joint products, produced as a result of the same work. For example, in the production of wheat or other cereals, the production of straw is a necessary adjunct. So are maize stalks in maize production, or cotton sticks in cotton production or cotton seed in cotton lint production, and several

other products like skim milk and whey in butter and cheese production or poultry in egg production, etc. The allocation of cost between these products can only be made on some arbitrary principles. Similarly the same equipment of bullocks, implements, etc., is used for the production of various crops and livestock requiring attention at different times of the year. Again some expenses like those connected with water channels, fences, carts, buildings, etc. are incurred for the farm business as a whole or a part thereof, and the allocation of such overhead costs can only be made on some rules or principles arbitrarily selected.

In fact an ordinary farm consists of a number of sections which are so closely linked up with each other that it is impossible to sort out costs for separate enterprises with accuracy. On the arable farms, for example, the rotation of crops is a unified process of production. Various crops benefit or harm the other crops in a rotation in different ways, the effect of which is rather difficult to assess. Under these conditions the determination of the residual effect of the farm yard manure becomes a difficult task. Besides this, various farm operations are dovetailed with each other to such an extent, that it is well nigh impossible to estimate precisely this effect for individual enterprises. For instance, in the rotation—maize, “Senji” (Indian clover), sugarcane, wheat—followed on some lands in the Punjab, when maize is intercultured, the seed bed for “senji” is also prepared or when irrigation is given to maize in its last stages of growth, the water applied is utilized in part by maize and in part by “senji.” Again while the former serves as a nurse crop for the latter, the latter in turn is able to draw upon the nitrogen of the atmosphere, provide food for its growth and leave the land in a fertile condition for sugarcane. This crop in turn again has a beneficial effect on wheat.

We may mention here some of the other difficulties encountered in cost accounting work, as well. First of all there is the question of the valuation of farm products produced and consumed on the farm. Should they be charged at cost price or at market price? In Great Britain

there seems to be an accepted rule of accountancy which gives definite directions to charge all products at cost. On the other hand, in U.S.A., the market price minus the cost of delivering the goods to the market is generally adopted. Various parties accept and advocate the rules of accounting which serve them best. The valuation of unpaid family is another difficulty. Should it be valued at what it costs to hire labour to do the same job, or what this labour would earn if it were utilized elsewhere?

There is also a difference of opinion as regards the inclusion of rent of land and interest on investment in the cost figures. Some include both, others exclude both, still others include interest and exclude rent, while in Great Britain it is usual to include rent but exclude interest on owned capital. Furthermore some investigators include a charge for management, but mostly this is not done. It is not possible to take full discussion on these points, the above mentioned difficulties have been pointed out simply to show that in the preparation of cost figures an investigator has to encounter a number of problems of a very highly complicated nature.

It is thus clear that the validity of cost data is effected to a considerable extent by the principles adopted for calculating the costs, the items included and the methods of valuation. All such figures should, therefore, be accepted with great care. It is rather difficult to arrive at a figure which properly represents the cost of production of a commodity. The cost studies invariably bring out a wide range of costs, the average being suggested as the representative cost figure in the consideration of the relation of cost to price. But since the average cost tends to divide the producers into two groups of about equal size, it cannot serve the purpose of determining the price at which an adequate supply of production will be forthcoming. It follows, therefore, that the cost should cover the bulk of production. This consideration has given rise to the development of a "bulk-line" theory, which is more or less a modification of the economist's theory of marginal cost. In practice the bulk line has been taken to include about 85 per cent of production, but this is merely an arbitrary basis.

While it is true there is an important relation between the "cost of production" and the price, it is clear that there are many other factors which also enter into this problem. The prices of most staple products are made by competitive forces in which market demand and fluctuating supply transportation, customs, substitutions, etc. exert a great influence. Farmers' reactions to losses and low margin of profits are so slow that the theory of farmers changing the type of production because of low margin of profits, is actually substantiated in practice only to a small extent. Moreover there are some enterprises which must be kept on a farm in order to provide occupation for labour in slack periods or utilize some by-products of other enterprises, or maintain soil fertility, even if they are not paying concerns. The limitation of the figures as regards relative profitableness of various enterprises are, thus, clearly visible.

In view of the fact that accuracy of detail is an essential feature of the cost studies, this work overwhelms the farmer as well as the investigator. The records of the utilization of labour by various enterprises and food consumed by various classes of animals cannot be obtained without a considerable expenditure of time, money and labour. On account of these difficulties, the number of farms coming under this type of investigation is usually small and the sample is rarely, if ever, large enough for statistical analysis, or truly representative of conditions prevailing in the universe studied.

No doubt, the use of full cost accounts for the study of farm problems, on a large scale is not possible, but the costing of a few farms is essential for the proper understanding of the farm business. No other form of recording can approach cost accounts, as means of displaying the full structure of the farm business and interlocking complexity of its departments. This point is of special importance in India since reliable and complete information on farm organization is not yet available. Furthermore, when the regulation of prices or control of markets is attempted, recorded costs of production, provided they are recorded on clearly defined principles, showing quantities which may be priced at one level or another, are of great value against

assertions of money returns or incomes required to maintain production. So long as principles are clearly defined, methods are definitely fixed and followed and costs are fairly numerous, they will always have some influence on the administrative determination of prices or returns from crops and livestock.

Enterprise Studies:

The object of the enterprise studies (By enterprise is meant a separate crop or a class of livestock) is more or less similar to that of full cost accounting except that in this case attempt is made to study the efficiency of production and the factors that make for success of a single enterprise only which plays an important part in the economy of farm.

The enterprise studies are conducted either along the lines of surveys or by accounting method. Usually the former is resorted to when only the gross factors of expenditure and income are required, but when details of expenditure, labour distribution and enterprise relationships are wanted, a daily accounting record is the only satisfactory source of information.

With a given amount of time and money, this method allows the covering of a larger area and the study of a greater number of instances than is possible with the full cost method. New methods, new enterprises, and new equipment etc. are introduced from time to time and the enterprise studies yield information on these subjects which it would be difficult or impossible to obtain quickly through detailed cost studies. Moreover in the case of the latter, by the time the results are available, these methods or practices might become obsolete and instead new problems may have arisen.

To obtain representative evidence as regards an enterprise at a particular time, it is essential to obtain a volume of data that covers all practices followed in its production. With the enterprise studies, it is possible not only to have a sufficient number of records, but also a number of instances for each of the practices of production that are in vogue in an area. With such detailed information, it is possible to

establish "normal" figures for various operations, yields and costs, etc.

The enterprise studies are best obtained for special or more or less staple products like wheat, cotton, etc. but when it is intended to draw conclusions as to the advisability of curtailing or increasing the production of a particular enterprise, it is desirable to study the relation that exists between the special enterprise and the farm business as a whole. With this method usually the physical inputs of labour and materials are recorded and the money costs may or may not be applied to these. But when these figures are expressed in terms of money, a considerable degree of estimation is needed. In recent years, on account of this reason, the tendency has been to lay more and more stress on the quantitative data rather than on money costs in the Western countries.

Financial accounting :

The financial accounting method of approach to farm management problems is based on the study of simple financial records which vary a good deal in detail from simple cash and inventory record, to systems of accounting yielding all information supplied by cost accounts except labour records. As compared with cost accounts it is much simpler in character, for in this case no attempt is made to break the farm unit into various sections. Normally the interdependence between various enterprises of the farm business is so great that to increase or decrease the production of one of them without consideration of other enterprises is more or less impossible. All individual enterprises contribute their share jointly with others towards farm income in farm unit as a whole. This share may consist in the actual cash return, in improving or maintaining the productivity of other enterprises, in the utilization of by-products and non-marketable products, or in the utilization of labour which otherwise may be wasted. It is thus clear that it is not the individual enterprises that are important, it is rather their total effect that is important. These characteristics of farm business have been clearly recognized and the study of the farm as a unit organization has found a great favour

with a large number of workers in agricultural economics.

This method, besides financial condition and description of the farm, gives the main lines of production, stock carried, etc. The diagnosis as regards the efficiency of farm management is based on more readily apparent symptoms, *e.g.*, farm income, labour income, family labour earnings, gross output, net output etc. for each factor of production, type of production, proportion in which various enterprises are combined, crop and livestock yields, size of business, capitalization, etc. This gives to the individual farmer a means of comparing his results with those engaged in various types of agricultural production.

The preparation and analysis of financial accounts present fewer complications and less laborious task than are associated with cost accounts. For this reason, with the same expenditure of time and money, accounts can be obtained from a larger number of farms. In other words by reducing the details of records and the simplification of the process of accounting, the size of the sample is increased.

Both cost accounting and financial accounting, the two methods already studied have certain characteristics which merit consideration before dealing with extensive methods, *viz.*, surveys and questionnaire. The accounting method in general has the following points in its favour:—

1. Accounts yield more comprehensive information regarding farm business than less costly methods.
2. With accounts it is possible to secure greater accuracy in data obtained.
3. Certain types of information such as utilization and distribution of labour and foods can only be secured through regular accounts.
4. From research point of view accounts have special value.
5. For planning next year's operations accounts serve as a useful guide.

By accounting the farmers learn to keep not only the records of their business, but are also led to adopt a more businesslike attitude towards farming operations. Besides these, farm accounts supply a large amount of information merely as a by-product; the investigators interested in such questions as taxation, credit, prices, labour, etc., draw useful information from such studies.

The accounting methods have, however, several drawbacks. In general they are more expensive than the extensive methods of study. The matter of accuracy seems also to be overemphasized, at the best it is more or less relative. Full accuracy is not only expensive, but in many cases practically impossible to attain. For many purpose a large number of records with only a fair accuracy may be much more valuable than a small number of carefully checked records. One great disadvantage in accounting studies is that accounts must be started without knowing the normality of the situation to be studied.

Physical and economic conditions change from time to time and such conditions may produce such an abnormal position that results may have very little value by the time they are available. Another important difficulty in accounts is that it is very difficult, if not impossible, to obtain an average picture of farming conditions. It is mainly for this purpose that "survey" method is adopted.

The Survey Method:

The word survey as applied to agriculture means the inspection of conditions under which farming is carried on in a particular area, region or country. The making of surveys is, perhaps, as old as civilization. The earliest surveys were those of travellers who recorded their impressions of journeys in new lands. Most of the old surveys had, however, two great drawbacks. One was that they included many unsystematised observations. Secondly, they usually dealt with conspicuous and unusual features only.

To stress the striking rather than the normal conditions is one of the greatest weaknesses of the human nature. Such observational studies, however, do not take the place

of a statistical study which is the object of the modern survey method as it is understood in agricultural economics.

The usual procedure of conducting survey is to ascertain certain facts relating to farm business from a number of farmers selected for this purpose. This number will depend upon the staff and money available and the proposed groups and sub-groups required in the final analysis. Usually one sub-group requires at least 20 records and on this basis a study involving 10 sub-groups would require not less than 200 records. Any number over 200 is considered to be a good number. Much, of course, would depend upon the objectives of the survey, but all the same it seems to be essential that the sample studied must be large so as to give proper chance of inclusion of all conditions existing in an area. Moreover according to the so called law of averages, the larger the number, the more reliable the average. The reason for this is that with a larger number of observations there is a better chance for any error to be cancelled by a similar error in the opposite direction.

After deciding the size of sample, the selection of the farms may be made in various ways. Some of the most important practices are:—

1. Random sampling or selection on the basis of lottery.
2. Selecting every 3rd, 4th, 5th or some other ordinal from a complete list of all farms or villages if farms are too many.
3. Route-sampling, *i.e.*, working out from a central point in a typical area till a sufficient number of cases has been observed. Under this practice again selection may be practised as shown under (2) above. Sometimes only easily accessible farms are examined.
4. Selection of farms after making a division of area into sections and districts. The number examined from each section or district may be proportionate to the importance of each.

5. Selection of typical farms with the aid of local people and data supplied by the agricultural statistics.

It is not possible to say dogmatically which of these methods is better than the others, because much depends upon the nature and object of enquiry, and the conditions prevailing in the universe to be studied. It is, however, quite obvious that such procedure as those of working out from the central point until a certain number of records have been secured or studying only those farms or villages which are easily accessible etc., do not yield a representative sample. The random selection is rare, but even where it is carried out, refusals of co-operation are likely to be many. The method of selecting farms or villages on some plan of stratification is likely to yield a more representative sample than otherwise.

After making a decision of size of sample and procedure of sampling, the next step in conducting a survey is to prepare a schedule of information required. For this purpose it is essential to have a definite object in view and to decide upon absolutely essential facts that are to be desired to be studied. Both for the sake of the investigator and the farmers the number of questions should be kept as small as possible. Another important consideration is the arrangement of questions. Their sequence should be in a logical order, *i.e.*, in an order in which each question follows more or less naturally from the answers of previous questions. It is best to put those questions first which are simple, general and of less personal character or those which stimulate interest. Questions dealing with money and those which are likely to be resented by the farmer should come last. Further, questions should not call for calculations by farmers.

It is best to have two forms—one for taking records in fields and the other for office use. Occasionally the same form is used for field and office. This, however, does not provide sufficient space for making notes or calculations.

Before starting the work it is desirable that the farmers or villages selected may be approached with a view to

explaining them the purpose of work and the information sought, and obtaining their co-operation. In any case in this work the personality of the surveyor is very important.

In the actual work of survey it is desirable to have two investigators working together. But the number of persons in the survey party would depend upon the information sought, number of farms to be visited and the distance between the agricultural units to be visited.

In the day time the investigations take the primary records. In this task the field workers must see that the answers given are correct and all blanks are completely filled. The unfilled blanks may either mean zero or that no record was taken, thus unnecessarily creating a doubtful situation. At night all records may be checked by a person who usually directs the work and has enough practical experience. Mistakes or omissions, if any, may be corrected either by sending an investigator again to the farm or by correspondence.

The records after checking are transferred to office sheets and the calculation work begins when this is finished. Relationships between various factors like size of farm, crop index, labour input, etc., and the financial success may be taken up by grouping records in various ways. Such analysis for determining relationships must be done by independent factors and not by dependent factors if one wants to know the effect of one member of a pair on the other.

The economy and rapidity with which this work is done and the wide range of adaptability are special features of surveys. Some of the most important problems studied by this method in Western countries are, the general economic conditions of a particular area, locality or a country, relative economy of different enterprises, production methods, practices and equipment, factors affecting farm profits, forms of land tenures, classification of areas by type of production, cost of living, standard of living, movements of population, etc.

Just as has been shown above, the principle on which surveys are based is that of systematic questioning and the results are largely based on farmers estimates. Because of

the fact that the information is supplied by farmers largely from their memory, the accuracy of survey data is often questioned. No doubt, it is undeniable that individual estimates in this case would not approach the accounting method in accuracy, but since large number of farms are examined, the claim of accuracy of the general results is based on the statistical law of averages.

It seems obvious that unless the farm business is highly complex and diversified, general details of business are likely to be known by the average farmers with a fair degree of accuracy. On an average the business transactions of a farm are few and many of them are fairly large and easily remembered by farmers. Although an average farmer knows fairly well the details of his business, the accuracy of information secured depends to a great extent upon the time of conducting the survey, the method of questioning, tactfulness and intelligence of the investigator, selection of the sample and the number of farms composing the sample.

Mailed Questionnaire :

The last of all we have to deal with the mailed questionnaire which is nothing but a series of questions answered by the farmers concerned without the personal visit of an investigator. It is usually sent by mail either to regular informants or to fresh ones every time an enquiry is made. The first procedure is usually adopted in the collection of general agricultural statistics whereas the second for making specific enquiries. In its usual form a questionnaire contains a short letter explaining the purpose of the enquiry followed by a number of questions and blank spaces for answers. In the preparation of questions special care must be taken. Questions must be simple, clear, well defined and easily understood. Each question must be complete in itself leaving no room for vagueness. It is always best to have questions which can be easily answered by "yes" or "No" or by a single figure or mark. Questions of personal nature should be avoided.

An excellent plan is to prepare a provisional questionnaire and to give it a short trial before the actual enquiry

is taken in hand. Such a test would reveal weaknesses if any. After this trial, the questionnaire may be sent to the farmers or persons selected for conducting an enquiry. In U.S.A. the Bureau of Agricultural Economics conducts a number of investigations through mailed questionnaire. Some of the returns are voluntary and others are compulsory. In case of voluntary returns it has been observed that the printed questionnaires have undoubted superiority over the typed or mimeographed schedules. The colour of the paper has also a definite effect on its "pulling" power. It has been judged that light pink or light yellow give better results. But the constant use of the same colour again results in the loss of pulling power. It is considered best to use these colours alternately.

In conducting special studies the use of questionnaire is limited. It is, however, useful in obtaining chiefly a limited amount of information from a large number of very widely scattered places, for reconnoitering new problems, outlining new research projects and supplementing data secured by other methods. In obtaining elaborate and comprehensive information such as can be secured through accounting and surveys, this method is unsuitable. Furthermore, when an agricultural population is illiterate, this method cannot be of much use. But wherever it is possible a decided advantage of this method is that with a few investigators an extensive study of a problem can be made at a small cost and also quickly and cheaply.

In general, the results obtained by this method must be considered with its limitations in mind. When a questionnaire is sent to a number of farms, selected at random or otherwise, all of them do not reply. Only better educated and more intelligent farmers than others tend to reply. Thus the results are not truly representative of the universe of enquiry. In some, perhaps, many cases, the questionnaire is sent only to a certain selected list of farmers, and under these circumstances those replying represent a still further selected group.

As regards the accuracy of data obtained, it appears to be obvious that while the results as a whole may be fairly accurate, the individual records are not likely to be accurate

enough to permit analysis of variations or for use in correlation studies. The average results may, however, be useful in indicating trends.

The applicability of various methods of research to agricultural problems in India.

In some quarters it is believed that these methods are not at all suitable for conducting economic investigations in India. For instance, Professor Habibur Rahman of the Osmania University, Hyderabad in his article published in January 1938 issue of the "Indian Journal of Economics" writes, that on account of the general illiteracy of the farmers, subsistence farming and lack of alternative occupations for the farming community, it is not possible to adopt any of the well known methods of economic research in our country. Our problems for immediate solution, he says, are too obvious to need any support of detailed statistics and investigations.

No doubt, there is some truth in this statement, but it is too much to say that none of these methods is suitable to Indian conditions or that "there is obviously neither the possibility of collecting statistical data nor any scope for utilizing them if they were available."* It must be admitted that our countryside is fast changing. With the development of rail, road and other means of communication, the isolation of the village is breaking up; it is becoming more and more connected with the outside world. The money crops are taking a place in the Indian Agriculture and considerable progress has already been made in the scientific research and technology and in their application to this industry. Rural uplift movements and schemes have taken firm roots and education is making rapid progress. Nearly every village contains a number of farmers who can read and write (not necessarily English). Even the village broadcasting is now no longer unknown.

In the Punjab during the last 14 years a number of economic inquiries have been made quite successfully by the

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simple financial accounting, cost accounting and survey methods of research. Our experience here shows that since our type of farming is very simple, the general details of the business are remembered by an average farmer with a fair degree of accuracy. Provided the investigator is tactful, fairly large number of farmers are visited giving due regard to the representativeness of the sample, and the investigator reaches them at the proper time, it is not difficult to get fairly reliable information on various subjects of economic interest. In other parts of India, unless conditions are radically different from those prevailing in the Punjab, there seems to be every scope of adopting these methods as such or in a slightly modified form according to the local conditions.

The other point raised by Professor Habibur Rahman questions the usefulness and scope of economic investigations and statistics. In his opinion a simple qualitative analysis of our economic problems is quite sufficient to deal with them successfully. But one of the greatest limitations of this method is that conclusions can not be stated with definiteness, unless of course, this analysis is of a very high order and is the product of best minds. In case of ordinary research workers it is essential to supplement qualitative analysis by quantitative data, for, otherwise, it will be inadequate and therefore unsafe.

Broadly speaking our problems in agricultural economics fall under two heads: (1) those relating to the farm management or the management of internal factors affecting profits of persons engaged in agriculture; (2) those relating to the social economics of agriculture or the external factors determining the course of production and the prices of agricultural products. In the field of farm management one feels rather doubtful as to what an economist can do in an almost self sufficient peasantry working under numerous handicaps. But a little reflection on the subject will show that for bringing about improvement in the lot of our agriculturists we can not proceed without an intimate knowledge of what farming is as it has developed under different agricultural and economic conditions. It is not only the question of finding out what is being produced or how it is

produced, but it involves a detailed study of resources and conditions under which production is carried on. Our agricultural technical experts are showing what is possible, the economist must also indicate what is expedient under our peculiar circumstances. For effective use of labour (manual and bullock) and materials, increasing production through the introduction of improved varieties or new crops, developing resources of income by introducing subsidiary industries, and planning production for higher profits, the farm management investigations provide a very valuable material. A simple statement like "grow groundnuts for higher profits on 'barani' lands" may be useful in preparing ground for the introduction of this crop, but when it comes to its actual introduction on a particular farm, it becomes essential to consider the economics of this crop in comparison with the crop it can replace, the extent of replacement and the effect of its introduction on income. Our agricultural advisors equipped with such knowledge can be more effective than when they possess only vague and indefinite ideas.

The problems connected with social economics of agriculture are primarily the concern of the State. In following or framing policies relating to the taxation of agricultural population, relief measures (such as fixation of prices, restriction of foreign competition, providing credit facilities), and adjustment of relations between various agents of production etc., unless action taken is based on reliable data, it may lead to very grave results. In recent years considerable difficulty has been experienced in the fixation of prices of sugarcane for the manufacture of white sugar and we are now feeling handicapped in revising land revenue or assessment charges for modifying contract status between the landlords and tenants by the absence of reliable information on farm incomes.

The lines, along which the work of making economic investigations can be started, may also be briefly outlined here. To begin with it is necessary to divide our country into economic regions based on (1) agricultural conditions—climate, soil, crops grown etc., (2) distance from consuming centres, (3) transport and marketing facilities, and (4) general influence of commercial and social contacts and

money economy. The density of population and the last three points are quite as important as the "basic agricultural conditions." In this task a comprehensive study of economic geography and the general statistics must be conducted and the survey method of research must play an important part. After dividing the country into economic zones, a number of villages in each zone may then be surveyed. Such surveys may not be repeated consecutively over a number of years. But whatever may be done it seems desirable to repeat the Surveys after every 10 or 15 years in the same places so as to study long-term trends of agricultural production.

While surveys will indicate general agricultural conditions and problems of various economic regions, they would not provide material which may be taken to be of much use for research and advisory work. The simple financial accounting should form the best basis for this purpose. Unlike Western countries it cannot have wide spread use in our country, but the maintenance of simple records with some farmers in each economic zone will be necessary. Depending upon the nature of problems and the quantity of funds and staff available, other methods will be required to supplement the data secured by this method. With the development of financial accounts, the need for conducting surveys will decrease.

The cost studies have a very limited scope in India. It would, however be useful to cost a few farms to study and properly understand their organization. It seems that cost accounting method can be simplified to a great extent to suit the Indian conditions. Since our agriculture is only of a simple type, the allocation of equipment costs and depreciation, etc., is not a difficult task. In most areas almost the same combination of crops is followed year after year. Where it is so, the process of the allocation of residues can also be simplified to a great extent. As long as direct allocations are accurate, refinements of the methods of apportioning indirect allocations appear to have a little effect on the final result for any specific commodity in the combination. These studies will be more useful for quantitative data rather than for money costs.

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ON CERTAIN LIMITATIONS OF THE THEORY OF COMPETITIVE EQUILIBRIUM¹

BY

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1. Competitive equilibrium postulates a condition in which economic subjects find a position of rest in the matter of choice between alternatives, that alternative being chosen which, under given tastes and the technical possibilities of the moment, affords the largest amount of satisfaction. As consumer, it is argued, one prefers that good which satisfies a relatively more intense desire; and as producer, one prefers that line which, other things being equal, promises to be more productive. Impelled by a variety of wants of different orders of significance, and faced with obstacles and resistances arising from environmental conditions, people choose; and if they are rational—in the sense that they prefer more to less satisfaction—they choose the best possible alternative in a given situation.

Granted the assumption of perfect competition a situation is envisaged at which prices of goods are proportional to their relative marginal costs, these marginal costs being made up of the prices of factors involved in the productive process; the factor prices being again equal to the value of their respective marginal productivity. Relatively to given tastes and obstacles this is a position of maximum satisfaction. The consumers and producers are assumed to make the best use of their environment, the former endeavouring to maximise satisfaction out of limited income, and the latter endeavouring to maximise product out of limited resources.

¹ Read before the Dacca University Economic Association on March 3, 1938. Secs. 3—6 form the substance of a course of lectures given to Final M.A. students of the University of Dacca in the Third Term of the session 1936-'37.

And this process may be shown to be working through the principle of substitution.

This can be very well demonstrated on what is known as the Indifference Curve apparatus. Given the Indifference System of an individual with respect to any two commodities, he will attain a more and more preferred position—nobody else being adversely affected—until he hits upon that combination of goods at which the objective rate of exchange, coincides with his psychological rate of substitution. Similarly, given the Production Opportunity Curve, or the technical rate of substitution of the community, it is possible to move an individual to a more preferred position, without affecting anybody else adversely, until one of his Indifference Curves touches the Opportunity Cost Curve tangentially, that is to say, until his psychological rate of substitution coincides with the technical rate of substitution.²

Perfect competition fulfils these conditions. It ensures what may be called an optimum distribution of resources in the sense that any deviation from it could only improve the position of one by bringing down some other individual or individuals to a less preferred position. All economists, to whatever school they might belong, would accept these central propositions of Theoretical Economics. They are indeed implicit in the assumptions of perfect competition.

These assumptions are the main support of the principle of economic liberalism. Adam Smith had once said that there was an Invisible Hand regulating economic activities and tending to move them towards the greatest good of mankind. This attitude held sway over a good part of the nineteenth century. The social philosophy of the time was considerably coloured by the economic theory which explicitly or implicitly took perfect competition as a normal feature in the economic system and an equilibrium of economic forces as a logical necessity.

2. The propositions derived from the assumption of perfect competition have found a permanent place in economic analysis, although it is now generally recognised that

² See A. P. Lerner, *Monopoly and Monopoly Power*, The Review of Economic Studies, Vol. 1, No. 3.

the position envisaged is one of relative and not of absolute maximum satisfaction. The following points are relevant in this connection:

(1) The tastes which are the starting point of our analysis are individual tastes and may not deserve any moral sanction.

(2) The demand system is the outcome of a particular distribution of income. Alter the distribution in favour of the relatively poor and there will evolve a new and a different optimum. There will perhaps be fewer orders for motor cars and a greater demand for wheat. There being no particular sanctity in the present system of distribution, the resulting equilibrium, if any, would not therefore ensure a maximum of welfare in any absolute sense.

(3) Given a constellation of data we are not sure always of a unique point of equilibrium. Marshall explains the possibility of a multiple position of equilibrium with reference to Increasing Returns. But even apart from that, once we drop the assumption of constant marginal utility of money it is not difficult to show how independently of any considerations about cost conditions in the technical sense, there may be peculiarity in the supply curve which would suggest more than one point of equilibrium.³

(4) A discrepancy may arise in a number of ways between what Professor Pigou calls the marginal private net product and the marginal social net product. The social dividend in which we are interested is maximised through an equalisation of the marginal social net products of resources, while that which is ensured by the free play of self-interest, even under conditions of perfect competition, is an equalisation of marginal private net products. The individual producer as such equates his marginal receipts with marginal cost, and brings the investment of resources up to the 'margin of profitability' from his private point of view. But the process of his investment may be accompanied by gains or losses of others, and if these gains and losses are not directly registered on the market investment, if left to

³ See Wicksell, *Lectures on Political Economy*, Vol. 1, pp. 52—60.

private initiative, would deviate from the optimum level. It may be carried too far, or it may not be carried far enough. In either case the position of equilibrium is not a position of maximum satisfaction in any absolute sense.

All this suggests that even assuming an approximation to perfect competition some sort of social interference is necessary and beneficial. These considerations are important and are surely recognised by all serious economists, although there may still be difference of opinion concerning the exact mode of interference and the particular direction that it should take.

What, however, is less widely appreciated but yet needs emphasis is that there are certain logical complications in the assumptions and the alleged implication of perfect competition,—complications that bid fair to lend new colour to economic analysis. It is to an examination of these that the following sections will be devoted. There is hardly anything new in what follows. Only particular emphasis is placed on the various directions from which the theory of competitive static equilibrium has been called in question in recent years. The economic happenings after the Great War have shaken the complacency of economists, and time has surely come for a reconsideration of the propositions of economic science in the light of the large deviations in the real world from the 'norm' postulated in static analysis.

3. What exactly are the assumptions of perfect competition? The list of those assumptions would be a frightfully long one; but for our purposes the following deserve special attention⁴:—

- (1) Commodities and factors should admit of perfect divisibility. Mathematically, the units chosen should be infinitely small, and subject to treatment in terms of differential calculus. For realistic purposes, what is necessary is that they should be small in relation to the volume of business.

⁴ For a detailed analysis of the assumptions of perfect competition, see Knight, *Risk Uncertainty and Profit*, Chap. III, p. 76—81.

- (2) There should be an infinitely large number of sellers of any single commodity, so that any individual seller may not be in a position to influence the price in the market.
- (3) There should be an infinitely large number of buyers (both in the commodity market and in the factor market), so that any individual buyer by his own action may not influence the price in the market.

With respect to specifications (2) and (3) it may be noted that what is necessary for realistic purposes is that an individual seller (or buyer) should *feel* that the market price is given to him and cannot be altered; and for this to happen, competitors need not be infinite in number.

- (4) Buyers and sellers should have a perfect knowledge about the condition of the market. Each competitor should know what others are doing and should anticipate correctly the effect of his own course of action upon the general system.

Perfect divisibility of factors is necessary for the fulfilment of conditions No. 2 and No. 3. These latter again are necessary for the equation between marginal costs and prices of goods, which is, as has been seen, one of those conditions that make for the optimum utilisation of resources.

Now the question arises, Are the assumptions necessary for the fulfilment of these conditions compatible with static equilibrium? Is it theoretically conceivable (whether or not the assumptions are sufficiently realistic is a different matter with which we need not concern ourselves here) that all these conditions being satisfied, producers and consumers would stop at a definite and determinable point, that the output and prices of goods would be so adjusted that there should be no profitable scope for any transference of income or of resources? The task of static analysis is to show how far—with constant tastes and obstacles, as in a closed economic system undisturbed by outside influences—econo

mic subjects, starting *de novo*, would find their way to a state of rest.⁵

4. An analysis of the first three assumptions would at once show how they are inconsistent with the establishment of an equilibrium. If the factors of production are perfectly divisible and there is an infinitely large number of competing sellers in the market, each seller would face a perfectly elastic demand curve for his commodity and a perfectly elastic supply curve of factors. In these circumstances there is no reason to suppose that any individual seller would stop at any definite point. Price as well as cost would be constant all through from the point of view of our individual seller, and, if exchange were profitable at the initial point, output could be profitably expanded *ad infinitum*. Just those conditions that are essential for the prevalence of perfect competition are found to work in a way contrary to the establishment of equilibrium. For equilibrium to be attained, there must be some indivisibility somewhere, giving rise to diminishing returns at some stage in the process of production.

Static analysis assumes the entrepreneur controlling the output of a firm to form that indivisible unit upon which are worked the hired factors, so that even though these latter have a perfectly elastic supply, expansion of output is checked by diminishing returns arising from the fixed supply of entrepreneurial function. An optimum output is fixed upon for every firm working under conditions of perfect competition, at which average cost is minimum.

How far, then, is the entrepreneurial function an indivisible unit? If it refers to the function of supervision which is a mere routine work of watching the regular functioning of the productive organisation once it is set up, it is

⁵ If the economics of what is described as a stationary state were cleared up, the problem of what is known as 'comparative statics' would seem to be an easy deduction. If our subjects knew how to adjust themselves to a given environment of constant tastes and obstacles, they would know also how to adapt themselves to a changing environment; there would be a 'static standard in a dynamic economy,' to use a phrase of J. B. Clark.

as divisible as ordinary labour; the supervisor can surely adjust his activities to the volume of business done. Under static conditions, therefore, an individual firm-owner would expand output until either he is in a position to influence the price of the commodity, in which case the check would come from diminishing marginal revenue or he can influence the price of the factors used, in which case the check would come from increasing marginal cost.

The real peculiarity of the entrepreneurial function, a feature that marks it out from other factors, lies in co-ordination, or the setting up of new combinations in the productive mechanism. Herein is the rôle of uncertainty and anticipation. The entrepreneur makes shrewd guesses about the market conditions and co-ordinates the different elements in the productive apparatus with a view to making profits. This function does emerge in the economic system in a lump, and is unmeasurable and hence indivisible. But it is a function associated with economic dynamics. In static conditions the function of co-ordination is absent.⁶

Logically, therefore, one has to fall back either upon the assumption of imperfect competition with all the complications that it raises, or upon economic dynamics. In either case the optimum utilisation of resources is not ensured.

5. The assumption regarding knowledge of economic facts leads us to yet greater difficulties. The data concerning the demand and supply of goods and factors being given, the economist can calculate their equilibrium price relationship by means of a set of simultaneous equations. But to whom are these data given? If they were given to any person or group of persons 'planning' would be an easy task. In an individualist exchange economy they are given, it is supposed, to the producers and consumers themselves. The individuals are supposed to 'plan' with full knowledge of the alternative possibilities open to them.

But how do they acquire this knowledge? Of course through trial and error. If data are constant, or in other

⁶ On the point developed in this section, see N. Kaldor, *The Equilibrium of the Firm*, Economic Journal, March, 1934.

words, if external conditions are stable, or at any rate, regular and predictable, the individuals may be supposed to gathering experience and adjusting their activities accordingly. At the start they are likely to commit mistakes, but they will gradually gather knowledge and their anticipations will prove more and more correct.

This, however, is a process through time.⁷ Adjustment of economic forces cannot be instantaneous. From the nature of the case the adjustment mechanism involves the element of time.⁸ Our analysis, if it is to have any real significance, cannot, therefore, afford to ignore the 'path' which economic activities follow through time. Static analysis of the functional type concerns itself mainly with what may be described to be the end-point of economic activities, and pays little attention to the problem of the 'path.' The procedure would be legitimate if the final point were independent of the intermediate points in the adjustment

⁷ This question of knowledge in relation to the adjustment of economic activities may give rise to a possible misunderstanding. If the planners—whether in an individualist exchange economy or in a socialist economy—had got perfect knowledge and foresight from the start, then the rôle of time would drop altogether from economic theorising, and the economic problem would have an easy solution. The assumption of perfect knowledge might thus be taken to cover within it all that is required for economic equilibrium. The implication of the economist's assumption of perfect knowledge is, however, not that. As Professor Hayek has recently pointed out, perfect knowledge is not a 'pre-condition,' but rather a 'characteristic' of equilibrium. (Cf. *Economics and Knowledge*, *Economica*, February, 1937) Rational choice involves a perfect knowledge of the economic environment; but the acquisition of knowledge is a process through time. It is important not to forget this; for, as is becoming increasingly patent now-a-days, this consideration has a most vital bearing on the problem of the ultimate choice of the structure of society.

⁸ Sceptics would at once seize this opportunity of vilifying abstract economic analysis on the ground that, once time is allowed, the data cannot be held constant. Of course this is true. But this by itself does not deprive static analysis of its significance. Any scientific analysis must proceed by stages, and must at earlier stages abstract from 'exogenous' complications.

process.⁹ But there is no guarantee that it should be so. Just that element, again, which is essential for the mutual adjustment process may lead economic activities away from—and not towards—equilibrium.

This can be easily seen from the following construction.¹⁰

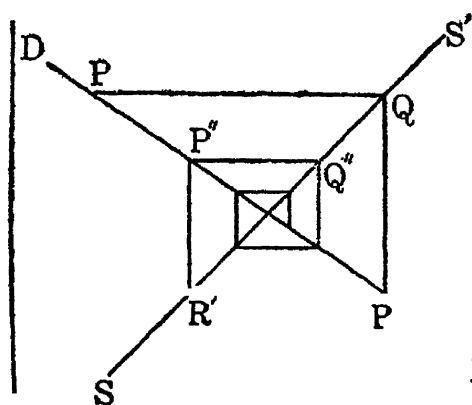


Fig. 1

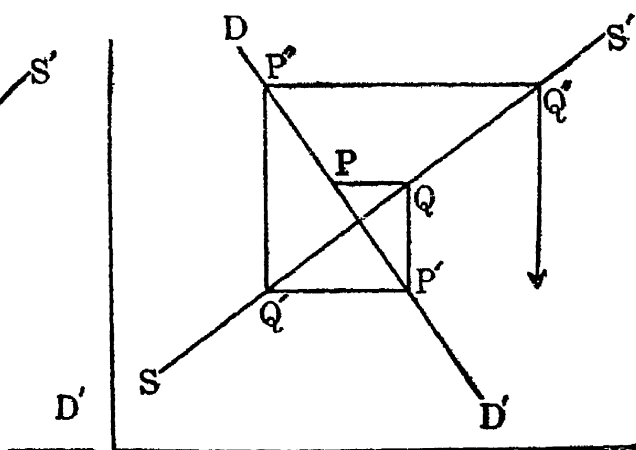


Fig. 2

DD' and SS' are the demand and supply curves respectively. Starting from a position of disequilibrium, and assuming that adjustment is completely discontinuous in the sense that the elasticity shows itself when it does, not by degrees but all at once—not quite an unrealistic assumption—let us suppose the price to be at P . The supply finds adjustment at that price at Q . The supply being at Q , the price is at P' . The supply now comes to Q' , so that the price moves to P'' , and so on. In Fig. 1 the oscillation is convergent, or the tendency is towards equilibrium. In Fig. 2 the oscillation is divergent, and the tendency is away from

⁹ For a thorough criticism of the Functional Theory of Prices, see Hans Mayer, "Der Erkenntniswert der functionellen Preistheorien," *Wirtschaftstheorie der Gegenwart*, Bd. 11.

¹⁰ See N. Kaldor, *A Classificatory Note on the Determinateness of Equilibrium*, *Review of Economic Studies*, Vol. 1, No. 2. In the demonstration that follows the actual price is assumed to be the same as the expected price. A divergence between the actual price and the expected price raises additional complications the significance of which is noted in the next section.

equilibrium. This process, as a glance at the curves would suggest, depends upon the relative elasticities of demand and supply at different prices. The case of convergent oscillation arises when the elasticity of demand is greater than the elasticity of supply; and the case of divergent oscillation arises when the elasticity of demand is less than the elasticity of supply.

The result achieved is disconcerting and points to instability rather than stability. For, if one is allowed to make a guess work in general terms, one is inclined to think that in the actual world much the more important case is that of elasticity of demand falling short of the elasticity of supply. Supply is least elastic in respect of agricultural goods of which food-crops form an important part, and the demand for these goods is proverbially inelastic. "The capacity of our stomach is limited," declared Adam Smith more than a century and a half ago.

If, on the other hand, adjustment takes place by degrees and is fairly continuous, then these elasticities would depend upon the relative 'velocity of adjustment' of demand and supply, *i.e.* to say, upon the time required by each to react to changes in economic situations. And whether or not a definite equilibrium should be attained would depend upon the speed with which demand adjusts itself to supply and price changes.

The comparative peace and stability that our economic system enjoyed during the greater part of the nineteenth century was due partly no doubt to its flexibility in other directions, but partly also it was due to the increasing number of population which rendered demand more and more elastic. It is no wonder again that the modern world with its more or less stationary population should have to face a most perplexing problem of a clash between prosperity and security,—a problem that was beyond the vision of the early nineteenth-century economists. "The price of peace is peace," declared Sir Josiah Stamp in his Presidential Address to the British Association two years ago, and he cried halt to the march of technological progress. The note of warning that he gave should not go unheeded, however unpalatable it might be.

6. The above analysis relates to individual commodities taken in isolation, and is an instance of what is known as 'Partial Equilibrium' method. In regard to the general economic system, is it true to say that, while there may be cyclical fluctuations in respect of one group of goods, it would be cancelled by opposite movements in respect of other goods, so that an optimum *employment* of resources would be ensured from the point of view of society as a whole? This is the implication of the famous 'Say's Law' which states that the demand for one good comes from the supply of another good, so that a state of general over-production or of general under-production in a society is a logical impossibility.

Static analysis starts from given resources, and concentrates on the problem of the distribution of those resources among goods in terms of relative values. Its preoccupation is with a hypothetical Barter Economy where Say's Law is a sort of a truism. At some stage a unit of account has to be invoked for converting the relative values into absolute prices,—a unit of account being essential for all economic calculations and for equilibrium itself. But money which serves as the unit of account is considered to be a 'veil' hiding the deeper relationship of goods.

It is, however, coming to be realised in recent years that money economy and static equilibrium are incompatible phenomena. The conception of money as a veil overlooks the very *raison d'être* of the institution of money. The main function of money is to bridge up the gulf between the present and the future. If the adjustment of the value relationship between goods and the distribution of productive resources had been instantaneous,—if there were an omniscient hand manipulating the entire economic scheme and fitting up the different elements into their proper places,—money would be a superfluous institution. Year in and year out streams of goods and services would be pouring into the economic system just suiting the demands of consumers. Any variation of relative demand would be instantaneously met by a corresponding variation in the employment of resources. There would be no demand for money as such.

But, as we have noted in the last section, adjustment of economic forces is a question of time. Each entrepreneur during any period of planning has to calculate in terms of a common unit the cost of his undertaking and the anticipated value of it. Money as a unit of account is required for this calculation. On the other hand, as soon as the element of time and uncertainty is allowed, the question of demand and supply of money becomes important. It becomes an important factor affecting the calculation of entrepreneurs.

The recognition of the incompatibility of the institution of money and static equilibrium has come from two independent approaches:¹¹ (1) The Cash Balance Theory and (2) The Capital Theory.

(1) Money is used as a safeguard against future contingencies, and has a demand of its own. The amount of money which a person would choose to hold rather than to invest depends above all upon the expectations regarding the probable date of expenditure and his expectation regarding the yield of investment. And these expectations are a potent factor influencing the volume of employment itself. If uncertainty were absent the cash balance held by the public would tend to zero and the velocity of circulation of money would tend towards infinity.¹² With uncertainty present, the supply of money does partly regulate the volume of employment by regulating the money income of the society and thus moulding the expectations of entrepreneurs.

(2) The capital theory leads us to a deeper analysis of the 'Natural Rate of Interest.' Wicksell, it will be remembered, defined natural rate as being equal to the current value of the physical marginal productivity of capital, and suggested that in a money economy a divergence between this natural rate and the actual money rate of interest would create a cumulative disequilibrium in the economic system. His standard of reference is thus one of a 'monetary equili-

¹¹ Cf. P. N. Rosenstein-Rodan, *The Coordination of the General Theory of Money and Price*, *Economica*, August, 1936.

¹² Cf. Knight, *Risk Uncertainty and Profit* (London School Reprint), Preface to the Re-issue.

brium' in which the market rate coincides with the natural rate, and in which, therefore, the economic system behaves just as it would under a barter economy.

Now, physical marginal productivity with which Wicksell identifies the natural rate of interest is a vague expression when we are concerned with heterogeneous capital goods and heterogeneous products. In giving definiteness to the notion of marginal productivity of capital one has not only to assume that resources are homogeneous, one has to assume further that the yield is homogeneous with the source. In order to make a sense of the concept of 'natural rate,' therefore, a definite exchange relation between factors and products has to be taken as given. This, however, is assuming away the problem. For, the exchange relations that are taken to be given are themselves dependent on 'time preference.' Barter economy thus becomes a myth, and in the ultimate analysis the so-called natural rate of interest resolves itself into what Keynes calls the Marginal Efficiency of Capital,—a rate of interest which would equate the present value of the expected net yields of a capital asset in future periods with its supply price, both in money terms.

Now, this of course rules out the idea of a 'norm.' For, a conformity of the actual rate of interest to the marginal efficiency of capital (towards which surely there is always a tendency)¹³ does not ensure an optimum employment of resources.

Both these approaches point to one significant conclusion, namely, that in a money economy—which is the economy that we are interested in—there is no 'natural tendency' towards a static level,—that anticipations play a most significant part in shaping our economic system.

¹³ For a criticism of Wicksell's natural rate of interest see Myrdal, "Der Gleichgewichtsbegriff als Instrument der geldtheoretischen Analyse" in *Beiträge zur Geldtheorie* (ed. Hayek). Myrdal yet follows the Wicksellian tradition in recognising the importance of the 'cumulative process.' But once the element of anticipation is allowed to enter into our scheme, there remains very little scope for such cumulative process as was conceived of by Wicksell. See in this connection Dr. Hicks' Review of *Beiträge zur Geldtheorie*, *Economica*, November, 1934.

From the methodological point of view, if all that has been said is correct, one is constrained to suggest that economic dynamics rather than being an aberration from a static norm, is the rule and should be studied of its own. If what we come to ultimately is a succession of short-period equilibria depending on the state of anticipation at each stage and having no reference to a static standard, then the traditional static model may turn out to be a misleading instrument of economic analysis.

From the point of view of policy the conclusions point to the danger of too much dependence on individual planning.

INDIAN INDUSTRIAL EFFICIENCY COMPARISON WITH JAPAN

BY

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The close inter-relation between standards of living, health and education on the one hand and standards of efficiency on the other is meeting with increased recognition today. The Indian worker is often blamed for his inferior efficiency standards as compared with those of his confrères in the advanced industrial countries of the West, and in Japan. While it is true that the Indian worker as matters stand today shows inferior productive capacity, fairness demands that in evaluating efficiency standards and, more particularly, in gauging possibilities of improvement in this vital sphere, adequate regard should be paid to the environmental conditions which conspire to make the Indian worker comparatively inefficient, and the removal of which would certainly conduce to increase the productive capacity of our large working class population.

That this is not a laboured defence of the Indian worker is made clear by the verdict of so competent and impartial an authority as Director Harold Butler of the I.L.O. In his report: "Problems of Industry in the East" on his recent tour of India, Ceylon, Malaya and the Netherlands Indies, reviewing health and efficiency standards in India and elucidating their inter-dependence, Mr. Butler says:

"It is frequently maintained that the Indian worker's output is small in comparison with that of European workers. This shortcoming is ascribed by many people in India to the climate, by others to the natural indisposition of the Indian

to work regularly and unintermittently or to his poor physique and stamina. All these statements no doubt contain some element of truth, but none of them can be accepted without reservation, nor do all of them taken together go to the root of the matter The truth is that efficiency and inefficiency are largely determined by a combination of the factors of poverty, ill-health, and illiteracy, which are so widespread in India that they seem often to be regarded as being as indigenous as the climate itself. These three factors are really inseparable, as ill-health is mainly the accompaniment of poverty, and illiteracy is largely the cause both of poverty and ill-health."

Let us, however, descend from the general to the particular. Till recently there was no satisfactory up-to-date information about the standards of living of Indian industrial workers. This defect has been fortunately removed to some extent by the recent inquiry instituted by the Government of Madras into the family budgets of industrial workers in Madras and the findings of which were published in 1938. The report of this investigation, it is interesting to note, deals with representative groups of both organised and unorganised workers; the former group included workers employed in cotton textiles, railway workshops, engineering works, oil installations and printing presses, and the latter beedi-makers, tailors, and harbour coolies and hand-cartmen.

The main facts which emerge from the investigation so far as they relate to organised workers may be summarised thus. The average number of persons constituting a family is 6.03, made up of 1.78 men, 1.95 women, 1.18 boys, 1.12 girls; in addition, 0.18 persons are dependant on the family. The inquiry showed that joint families, that is those including, in addition to a natural family of husband, wife and unmarried children, dependants also, constituted 77.22 per cent of the total number of families. Thus the economic responsibility of the head of the family

extended to 6·21 individuals. The average income per month of income groups ranging from Rs. 20/- to Rs. 70/- and over per month was found to amount only to Rs. 37·5-11; 95·06 per cent of this sum is derived from employment. The greatest single source is the earnings of the husband amounting to 78·33 per cent. The wife is responsible for 0·57 per cent of the earnings, the children for 2·89 per cent and other members of the family for 13·27 per cent. The average income from other sources amounts for all families to Rs. 1-13-7 and represents 4·94 per cent of the total.

Even more revealing than the low combined income figure are the itemised details of expenditure. The data collected show that even out of the monthly pittance of Rs. 37·5-11 for 6·21 individuals, the Madras worker on an average saves Rs. 0-5-9 in the month, reducing by this extent the amount left for the domestic budget. The balance of Rs. 37-0-2 is allocated thus among the main heads of expenditure: food—Rs. 19-7-8 (52·63 per cent); housing—Rs. 4-1-11 (11·14 per cent); clothing—Rs. 1-10-8 (4·50 per cent); fuel and light Rs. 2-7-6 (6·67 per cent); and miscellaneous Rs. 9-4-5 (25·06 per cent).

It does not require any elaborate investigation to reach the conclusion that the meagre income of the industrial worker in Madras City, not to speak of those of moffusil areas where workers naturally receive less wages, does not permit of the Madras workers conforming to any socially acceptable minimum standards of living. The result is that in each of the items essential to human well-being—food, housing, clothing, and fuel and light, the worker has to stint himself. The calorie needs of an industrial worker in Madras have been estimated to average at 2800 per day. The Madras family budget inquiry shows that except for families in the highest income group, namely, those whose income exceeds Rs. 70/- per month, not one of the other groups of families is able to attain to this standard. In the income group Rs. 70/- per month, and over, with whom the monthly food budget amounts to Rs. 39-11-4, the average standard of 2800 calories is exceeded by 2 per cent, while in the average for all families, with whom the monthly food

budget amounts only to Rs. 19-7-8, the calorie content of the prevailing diet is 14 per cent below the standard.

The model diet for Indian workers drawn up by Dr. Aykroyd of the Nutrition Research Institute, Coonoor, which yields about 2800 calories has been found to cost Rs. 5-9-0 per month per unit of consumption, or with salts and condiments Rs. 6-0-0 per month. The inquiry has shown that the amounts spent on food per unit of consumption ranged for Rs. 3-5-0 in the income group below Rs. 20-0-0 to Rs. 5-3-0 in the income group over Rs. 70-0-0; with the prevailing wage levels, there does not therefore seem to be any prospect of working class families being able to afford the diet costing Rs. 5-9-0 drawn up by Dr. Aykroyd.

Nor is the deficiency attributable to lack of adequate wages the only handicap which our workers have to face. The diet of the Madras worker, it has been ascertained, suffers also from lack of balance; the point here is that even the inadequate sums spent at present by the average Madras worker can be laid out to better advantage in obtaining for himself and the members of his family a more balanced dietary. Thus, he can without much additional cost reduce the intake of rice, and increase the consumption of millet, milk, pulses and leafy vegetables, and replace the milled parboiled rice now used by raw milled rice. This is a sphere where the factor of education comes in, for the receptiveness of workers to suggestions for improvement of conditions when they conflict with long-established tradition and practice, is dependant in large measure on their educational equipment.

The other important items in working class family budgets—housing, clothing, etc.,—can only be briefly noticed here. A study of the frequency distribution of rents paid by working class families in Madras City shows that nearly 25 per cent of them pay a monthly rent of less than Rs. 3/-. These families are generally found to occupy one room tenements 8 feet by 5 feet to 8 feet square with low mud walls; it need hardly be pointed out that these wretched hovels where congested humanity is packed like sardines in a tin are very poorly lighted and ventilated, and that the washing and drainage facilities and latrines provided are

of the crudest description. The close connection between housing and bad health is admitted on all hands. In Madras the dire results are writ large in the vital statistics of the workers; the incidence of respiratory diseases rose in the city from 5.1 per mile in 1913 to 11.7 per mile in 1936, and the prevailing high death and infantile mortality rates furnish additional testimony to the ill-effects of insanitary housing and other environmental conditions on workers.

The foregoing brief analysis of the more important features of the income and expenditure budgets of the industrial workers in Madras City clearly goes to show that a radical improvement in conditions is most urgently called for—for, if the industrial worker in an urban area lives on such a marginal budget, the conditions of workers in the unorganised industries and of the peasantry in general are bound to be far worse. In fact, so bad are Indian conditions in this respect that they do not permit even of profitable comparison with conditions in Western countries. When it is alleged that the average Indian worker is content to exert only a minimum of effort and to ask for little in return, it should, however, be remembered that this is the result of deeply rooted social and mental attitudes, attributable mainly to removable environmental conditions—poverty, ill-health, and illiteracy. Concerning this aspect, a recent I. L. O. publication “The Worker’s Standard of Living” observes: “In short the Indian worker’s scale of values is such that he has scarcely come to recognise the idea of raising standards of living as an objective of policy, thus making it impossible to judge his level of living by European or American standards.” It would, therefore, be more profitable to institute a comparison with standards in Japan, a country with more comparable standards of living and India’s most formidable competitor in the industrial field in Asia.

According to a family budget inquiry conducted in Japan in 1935-36, the average monthly income of about 1,100 urban wageearner’s households was about 87 yen, and about 40 per cent of the households investigated had a monthly income of less than 80 yen (Re. 1=¥en 1 1/5). Thus the average urban worker in Japan, with his monthly

income of 87 yen (Rs. 71), commands about double the wages of the Madras urban worker. With regard to family expenditure, the enquiry showed that the average monthly expenditure for all families was 81·14 yen, thus allowing a surplus of 5·85 yen. The relative expenditure for food was on the average 37·34 per cent, for miscellaneous expenditures 32·15 per cent, housing 15·32 per cent, for fuel and light 4·62 per cent, and for clothing 10·57 per cent. Thanks to the efforts made to combat food inadequacy by popularising improved dietaries, the Japanese worker's food is based on more balanced consumption of different food-stuffs; as in India, rice constitutes the most important item in the Japanese worker's diet, but it is supplemented by cereals like barley, wheat, millet, "kibi" and "hie" and by potatoes and corn. Likewise, vegetables and fruits, fish and meat, besides various sea products are served with rice.

In respect of housing conditions also the Japanese worker is certainly more fortunately circumstanced. The following are the details of workers' houses built in 1927 in the slum clearance scheme carried out in Yokohama by the State-subsidised Dojunkai Association: Quarters built to house one person had one or two rooms with a floor space of 79·3 or 133·2 sq. feet; to house from 2 to 7 persons two rooms with floor space ranging from 133·2 sq. feet to 177·6 sq. feet; and to house 8 people and over three rooms with floor space of 239·8 sq. feet. When it is remembered that this housing plan was set up primarily to meet the minimum requirements of the poorest classes of the urban population, and that the quarters contained in addition an equipped kitchen, a store-room, a drying-room, running water and gas, it will be readily conceded that the Madras urban worker is far worse off in respect of housing facilities.

It is in respect of literacy standards, however, that the greatest disparity is observable. Over 90 per cent of all the people in British India aged 5 years and over are illiterate, though conditions are better in cities. The Madras inquiry shows that 69·27 of the industrial workers of the city were literate, but it is against the general background of workers' illiteracy in both urban and rural areas

that efficiency standards have to be evaluated, and in this respect India is sadly handicapped as compared with Japan. As against 90 per cent illiteracy among people aged over 5 years in British India, in Japan the problem of illiteracy is practically non-existent. As a result of the enforcement of compulsory education and also of the eagerness of the people for education, school attendance is almost 100 per cent. in Japanese primary schools. In 1935, there were 11,150,824 children of school-going age (6 to 14 years) and of these 11,103,920 or 99·58 per cent were reported to be in attendance.

Let us briefly recapitulate the facts ascertained by the comparison instituted above. The Japanese worker is in the enjoyment of double the salary earned by the Indian worker; he spends it more rationally and his dietary in particular is a more balanced one and rich in those food values which build up energy; he lives in a better house and under very much better sanitary conditions; his educational equipment is superior, and his reactions to the demands of modern machinery are, therefore, quicker and much more spontaneous; above all, thanks to better educational equipment, financial conditions, and standards of living, he has got a contended, rational and sane outlook on life, unlike the Indian worker, who is so dominated by the discontent complex born of wretched conditions of life and work, that he behaves like a modern Ishmael, with everybody's hands against him and his hands against everybody. Is it any wonder then that the Japanese worker functions as a more efficient unit of production than the Indian worker?

The remedy is self-evident. Improve the conditions of life and work of the Indian industrial operative, and the trifling outlay of money entailed would be amply repaid by his improved industrial efficiency. Director Harold Butler, in his report "Problems of Industry in the East" points out that in those industrial concerns where Indian workers are better paid and housed the output per worker is decidedly higher, and among other instances, cites the case of the Tata Steel Works where in some departments the labour coefficient is estimated to reach about 75 per cent of European and American efficiency. Poverty, ill-health, and illiteracy

are factors within human control, and India's social policy must be so directed as to remove them as early as possible if we are to reap returns in the shape of higher individual efficiency and a front-rank position among industrial countries.

THE CONCEPT OF THE "OPTIMUM" OF PUBLIC FINANCE

BY

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In this paper, an attempt is made to restate¹ the concept of the "Optimum" of Public Finance in such a manner as to connect it with the general doctrine of State Action in modern economic theory.

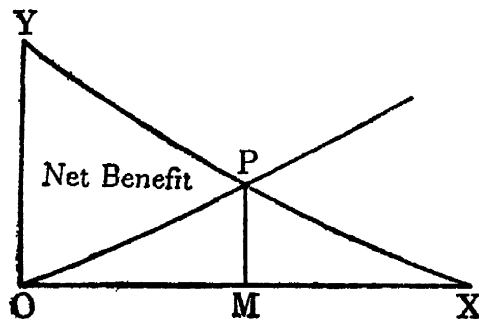
The pure theory of Public Finance deals with the satisfaction of "Collective Wants" by means of 'public' goods and services. The state, acting as the people's agent, satisfies some of their needs on their behalf, and for this purpose, slices off a part of the people's income. The whole transaction is ultimately of the nature of a transfer. In raising its revenue by various means, the state transfers to itself some part of the people's purchasing power, and through its expenditure system, the state returns that purchasing power to the people in the form of direct and indirect benefits.

The fundamental question, however, is, What are the criteria for determining the amount of purchasing power which the state should transfer to itself, and spend on behalf of the people? or How to determine the most economic 'quantity' of Public Finance? The notion that the state should proceed on the criterion of the 'Absolute Taxable Capacity' of the community has been shown to be a 'myth' by Dalton. Attempts have been made to replace that notion by that of the 'Optimum' of Public Finance.

It can be formulated thus :

¹ Ghosh : "Optimum Taxability" (*Indian Journal of economics*, 1931). Also Adarkar : Principles and problems of Federal Finance, pp. 198—205 The first part of the article is based upon the contributions of Professors Ghosh and Adarkar.

Translating the operations of spending public money and raising it into the utility and disutility analysis, it can be said that as the amount spent goes on increasing, its marginal utility goes on diminishing; while, as more and more money is raised, the marginal disutility (or sacrifice, or burden) goes on increasing. The limit for the operations of raising and spending public money is given by the point at which the marginal utility of expenditure is just equal to the marginal disutility involved in raising the revenue. Professor Pigou has observed, "If a community were literally a unitary being with the government as its brain, expenditure should be pushed in all directions up to the point at which the satisfaction obtained from the last shilling expended is equal to the satisfaction lost in respect of the last shilling called up on government service."² This point can be illustrated by the familiar diagram:



The excess of total utility of expenditure over the total disutility of taxation might be called the Net Benefit, or Net Utility of a scheme of Public Finance. The aim of the state should clearly be to maximise the Net Benefit.

At this stage it is tempting to say "The amount of Public Finance which maximises the Net Profit is the 'Optimum' of Finance. Its attribute is that the marginal utility of expenditure must be equal to the marginal disutility of taxation." Such a statement would imply that the 'Optimum' of finance is an amount or a level. As a matter of fact, since the maximisation of Net Benefit would depend, not only upon the amount of finance, but also upon the nature of the expenditure and taxation systems, it seems

²Pigou, *A Study in Public Finance*, p. 50.

better to conceive the 'Optimum' as the most desirable scheme of finance rather than as a most desirable amount. Such a conception, it must be admitted, loses much of its quantitative determinateness, but it gains in the width of implication.

Such an 'Optimum' scheme of finance might be conceived in a 'Static' as well as in a 'dynamic' form.

In its 'Static' aspect, an 'Optimum' scheme of finance would be one which maximises Net Benefit under given conditions of the amount of the National Dividend and the manner of its distribution. It is possible to conceive of a scheme of finance such as to leave the objective National Dividend and the manner of its distribution unchanged. Under the aegis of such a scheme, Net Benefit might be derived through the mere transference of spending power from private individuals to the collective agency of the state. For, the utility of a part of the National Dividend would be increased if it is spent by the state on those needs of the people which cannot be adequately satisfied by the people individually out of their private incomes. Such a conception of the Optimum, besides being abstract, (in the sense that it requires us to assume that a scheme of finance will have no effects on production and distribution), would be based upon a narrow view of state functions. It would neglect the 'sociological' view of Public Finance; for this reason, it will fail to bring about maximum social advantage.

On the other hand, a 'dynamic' conception of the 'Optimum' scheme would be one in which the amount of finance, and the natures of the expenditure and taxation schemes are so arranged as to maximise net utility conceived in terms of the present and future social welfare. Such an Optimum scheme would be a function of two factors: (1) The amount of finance, (2) the natures of expenditure and taxation schemes. These two factors, though not independent, would possess different attributes in their optimum condition.

I. The attribute of the optimum amount is the equality of marginal utility of expenditure with the marginal disutility of taxation.

II. But since the utility and disutility would depend upon the nature of the expenditure and taxation schemes, we have also to describe the attributes of the latter in their optimum conditions. These attributes would be:

- A. That the tax system be based on the principle of least Aggregate Sacrifice and the expenditure system on that of Maximum Aggregate Benefit. This attribute will depend upon (a) optimum distribution of tax burden and expenditure benefit, (b) the arrangement of the tax system in such a manner that various taxes are pushed in their respective directions up to that point at which the marginal sacrifice is equal in all directions; and so with the expenditure system.
- B. The schemes of taxation and expenditure should be such that their aggregate effect on the volume of the National Dividend and the manner of its distribution is most favourable, or, which is the same thing as saying, the taxation and expenditure schemes should be so arranged as to supply correctives to the distributive and productive systems under capitalism. (Here, the familiar analysis with reference to distribution will not be repeated; and attention will be devoted only to Production.)

With regard to Production, it is now recognised that under *laissez faire*, the utilisation of the productive resources would exhibit two main defects:³ (i) The distribution of resources among different employments and regions would depart from the optimal distribution. Such departures would constitute "misdirections" of resources. (ii) Some productive resources might be unemployed. These two defects—misdirection and unemployment of resources—call for governmental measures, which should be appropriately

³ These represent the familiar analysis of Prof. Pigou and Mr. Keynes.

fitted into an optimal scheme of public finance. The two categories of measures and their bearing on public finance must now be examined more closely.

I. Misdirection of resources arise as a result of divergences between the marginal private net product and marginal social net product⁴ of resources. These divergences are of two main types:

(a) Cases where the marginal private net product is less than the marginal social net product. In such cases productive resources would be under-invested from the point of maximum social welfare.

(b) Cases of the opposite type, leading to over-investment from the same point of view.

It is obvious that in an optimal scheme of public finance, taxation and expenditure should be so arranged as to encourage the flow of resources in the former cases, and to discourage it in the latter. Under the first category would be subsumed the entire scheme of social expenditure on education, public health and on economic and cultural development of the community. In the latter would be included taxation (or perhaps even prohibition) of resources on the production of harmful commodities like opium, alcohol etc.

II. Unemployment of resources. Here Mr. Keynes has shown that under *laissez faire* full employment may not be realised as a result of the deficiency of "effective demand." This implies that the state should adopt certain measures directed towards increasing the volume of investment and current expenditure so as to lead to the complete absorption of the productive resources. The adoption of such "central controls" would "involve a large extension of the traditional functions of the state." Mr. Keynes further observes:

"The state will have to exercise a guiding influence on the propensity to consume, partly through its scheme of taxation and partly perhaps in other ways. Furthermore, it seems unlikely that the influence of banking policy on the

⁴ Pigou, *Economics of Welfare*. 2. Mr. Keynes, *General Theory of Employment, Interest and Money*.

rate of interest will be sufficient by itself to determine an optimum rate of investment. I conceive, therefore, that a somewhat comprehensive scheme of socialisation of investment will prove the only means of securing an approximation to full employment, though this need not exclude all manner of compromises and of devices by which public authority will cooperate with private initiative.”⁵ It follows, then, that the state should take positive measures to ensure such a volume of “effective demand” as to absorb all productive resources. Measures dealing with investment and with current consumption might now be separately examined.

(i) In the field of capital investment the Keynesian analysis suggests that besides the manipulation of the rate of interest, the state should adopt measures to influence the volume of capital investment during years of depression by (a) stimulating and coordinating the capital programmes of private entrepreneurs and of local bodies and (b) extending its own capital programme. This latter means that the public works programme of the Government should be so arranged as to increase the volume of employment during depression. This implies that the state loans should be increased during depression, and diminished during years of prosperity.

(ii) Increase in the volume of current consumption can be brought about in two ways: (a) in the first place, if the scheme of public finance is such as to reduce distributional inequalities, the current expenditure of the community will tend to increase. If we accept the law that the percentage of current expenditure diminishes as the income increases, it follows that a mere transfer of income from the richer to the poorer classes will lead to increased current consumption.⁶ (b) Secondly, the state can bring about a direct increase in current consumption by granting credits to the consumers during depression and cancelling them in years of prosperity.

⁵ Keynes, *General Theory*, p. 378.

⁶ Keynes, *General Theory*, p. 962. Meade: *Elements of Economic Analysis and Policy* and *Consumer's Credits and Unemployment*.

These two groups of measures dealing with investment and current consumption imply that the state should spend more in bad years when its resources are likely to decline, and spend less in good years, when its revenue position is satisfactory. From the point of view of budgetary technique such a scheme has some important implications. It means that the accepted notion of annual budgetary equilibrium should be abandoned, and the ideal of balancing the budgeting over a trade cycle period should be kept in view. Such a new conception of budgetary equilibrium has been discussed in recent years by economists and financiers and the main elements of the discussion are here presented.

The plan of long range budget balancing was put forward in America by S. E. Leland of the University of Chicago in a pamphlet called "Balancing the Budget" (1933). Mr. Buck in his recent book "Budget in the Governments of to-day" sums up the argument thus: that the budget need not be balanced annually; it is enough if it shows an equilibrium over a series of years covering a trade cycle; that during years of depression when prices, production and employment decline, the Government's expenditure should increase, and deficits would tend to occur; that these deficits should be wiped off during years of prosperity.

The plan, undoubtedly, has some merits, especially if it is viewed as a part of a comprehensive programme of dealing with the trade cycle. There are, however, some practical difficulties in the way of its adoption. Thus, if the plan is to approach anything like success, the range of budgetary planning should coincide with the tenure of one ministry and the extreme improbability of this coincidence can easily be imagined. Unless, therefore, the democratic methods of financial control are abandoned, the plan would have little prospect of success. On this ground the plan was rejected by Mr. Neville Chamberlain, as also by a group of economists who studied the matter a few months ago. Messrs Falk, Balogh, Crowther, Hall and Henderson recently issued a memorandum on this question, which was published in the London "*Economist*" of 11th June, 1938. These economists are agreed that some budgetary expedient needs to be devised for the purpose of alleviating the trade cycle.

The scheme of a 5-year or 8-year budget is, according to them, "ruled out by the political impossibility." They, however, favour the use of extra-budgetary funds for this purpose. They observe:

" . . . Something of this nature could be, and is achieved through the intermediary of the various funds that are under the control of the state but outside the budget. The clearest case in point is, of course, the Unemployment Fund, which, in 1937, increased its surplus by £21 millions, even after repaying £5 millions of debt. In a depression year the unemployment fund will draw upon its balance to meet an excess of expenditure over receipts. Thus, if the budget, narrowly so-called, is exactly balanced every year, the operations of the unemployment fund will result in the income of the state exceeding its expenditure in good years, and vice versa in bad years."⁷

Such a device would constitute a good item in a general programme of recovery.

⁷ *Economist* : Vol. CXXXI—No. 4946—page 593,

ECONOMIC CONDITION OF A VILLAGE IN NORTH BIHAR

BY

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“The rural masses in India have ever been neglected, but there are signs that they are at last beginning to receive public interest; in fact, a great wave of sympathy and anxiety for their welfare is sweeping over the country . . . The Indian village and villager form a fascinating though a pathetic study, well repaying the time spent on their behalf. This call is irresistible to those who have once heard it.”

India being mainly a land of villages and more than 70 per cent of her population being dependent on land for their subsistence the importance of village surveys can hardly be over-estimated. Such surveys have been undertaken, from time to time, under the auspices of the Chanakya Society and they have resulted in the discovery of important data and facts. Some members of the Society, under my supervision, undertook a survey of the village of “*Khirhar*” during the first week of the month of March, 1939. The village being a very large one and the time for conducting the enquiry being short, the investigators had to confine themselves to certain aspects of inquiry only. The investigators were regarded by some as agents of Government and as such some of the villagers were reluctant to supply them all the information necessary. Sometimes wrong information was given—the villagers overestimating their own difficulties and troubles in some cases and underestimating their true state of affairs in other cases to suit their particular purpose. Incidentally, it may be mentioned here, that one very serious difficulty the investigator has to face with in the collection of data and family budgets is the illiteracy of the villagers. They are for the most part absolutely illiterate

or can at best read and write a little Hindi or Urdu, with difficulty. Consequently they are not in a position to keep any account of their income and expenditure and have to furnish information from memory. Another difficulty is that they are very reluctant to supply any information for fear of reduction of income or payment of more taxes or from fear of harassment. And when at last they are persuaded to give up their reticence, they supply such exaggerated and contradictory information that the investigator must exercise a great deal of discretion and judgment before he can arrive at any useful conclusion.

The village of Khirhar is situated on the bank of the river Kamala about 22 miles to the north-west of Madhubani in the district of Darbhanga. The nearest railway station is Madhubani which is approachable by means of a Kaccha unmetalled road under the control of the District Board. During the dry months of the year a bus plies between Khirhar and Madhubani daily. But what a sad plight the villagers must have during the rainy season when it becomes impossible for wheeled vehicles to pass over the road! They are practically cut off from the outside world and have to lead an isolated life. This condition of things prevails in the case of most villages and so with all the latest developments in the means of transport India is still a land of distances. The importance of good roads can hardly be over-emphasized. Good communications are of great importance to the cultivator for on them largely depends his opportunity for favourable marketing of his produce. Good communications also react upon every aspect of the cultivator's life for the closer connection which they create between the villages and the towns must stimulate the more backward and rural community to demand a higher standard of education as part of a general standard of living. They also induce interchange of ideas and broaden the cultivators' outlook on life. So the need for a more planned, forward and enthusiastic policy is indeed great for making developments in the road system of India.

The village is a big one extending over about two miles from east to west and about a mile and a half from north to south, the area being about 2400 bighas. A District

Board road runs through the centre of the village connecting the road to Madhubani. The annual rainfall is between 40 to 50 inches. Though this is sufficient, unfortunately it is very capricious. In some years nature declares a lock-out and there is very little rainfall and in some others the village is visited by floods which cause great damage to crops. The climate is fair but it has all the extreme changes in temperature which are so characteristic of the North Bihar plains. From the beginning of April to the middle of June hot winds usually blow from the west; then come the rains with epidemic of fevers (mainly malaria) in their wake and before the people have recovered their strength, sudden cold weather sets in in November or December resulting in further loss of life from other diseases.

The chief inhabitants of the village are Bhumihar Brahmins who are called Paschima Brahmins in this part of Mithila as they came from the west and settled here. The village is owned by Bhumihar Brahmins—all descendants of the family of Babu Dhiraj Chawdhury who acquired all the property. The ancestors of these Zamindars came from Manika—a village in the district of Muzaffarpur—about two centuries back and settled here and occupied the village.

The village slopes from north to south. The river Kamala once flowed through the village. The old bed of the river is still there and in rainy season it is full of water and is over-flooded sometimes causing great damage to crops. Last year due to the flood the people had to begin agricultural operations once again. Formerly there was a very good system of tank irrigation in the village. There were nearly 72 tanks. Now most of them have been filled up due to the frequent occurrence of floods. Though the particular proprietor has benefited by filling up of his tank and its conversion into grain-field the wider interest of the village has suffered. Some of the tanks remain there to this day and they serve a very useful purpose during rains. Sometimes a bund is put across the river and the eastern portion of the village is irrigated through this process. It often happens that when flood comes the whole village area is over-flooded and when it recedes it takes back the water

which had accumulated in a particular field during the early rains thus leaving the field dry. Due to the filling up of several tanks there are at present not a sufficient number of reservoirs where water can be stored. Some of the tanks are full of water hyacinth and the water is unfit for drinking purpose. Fortunately the village has been provided with five tube-wells by the District Board and the Zamindars and these supply drinking water to many. Others get drinking-water from a number of wells.

The village consists mostly of mud houses with thatched roofs. There are some houses the walls of which are made of mud and bamboo (of which there is an abundance in the village) with thatched roofs. Some people who have a better economic status have brick built houses. There are five or six pucca two-storied houses owned by the Zamindars. A stranger is generally struck at the absence of ventilation in the dwelling-houses of the majority of the people. There are no windows in the living rooms which are very small and if they are occupied by a large number of persons they become intolerably stuffy. The only ventilation is provided by small holes in the walls of the rooms. On the average most of the houses have two rooms and the average size of the family is seven. The courtyard and interior of the houses are clean and well-kept, it being part of the duty of the housewives to plaster them periodically with mud mixed with cowdung and straw. The crooked lanes outside, however, become the depository for all household refuse through which the drains from the houses meander to a lower level and form stagnant pools. Large heaps of farmyard manure all round the village make the surroundings insanitary. The tragedy is that such a state of affairs should exist when, with the corporate action on the part of the villagers, the evils are so easily remediable. A common determination to keep the village clean and to avoid as far as possible the pollution of tanks would undoubtedly lead to an enormous improvement of the public health.

At the time of the inquiry the number of families in the village was 1167 and the total population was 7003 consisting of 3679 males and 3224 females. The males outnumber the females, as in the case of the majority of the

provinces in India, the ratio being 876 females to 1000 males. On a consideration of the figures for the last eight years (1931—38) it is found that the average birth-rate is 33 per thousand of the population and the average death-rate is 28—the corresponding figures in the census (1921) of Bihar and Orissa being 37 and 27. The infant mortality of the village can only be described as appalling. In these eight years 1859 children were born and 372 of them died before they were twelve months old giving a death-rate of 200 per thousand, or 20 per cent. The death-rate among the children of the landless labourers is higher still due to extreme lack of nourishment. High mortality would appear to be due to the superstition and ignorance which prevent the people from taking advantage of such little medical facilities as are available. Another reason perhaps is the prevalence of child-marriage and yet another the insanitary condition of most parts of the village.

The Muhammedans number about 1800 forming more than a quarter of the total population. Amongst the Hindus the Bhumi-har Brahmins are the most numerous community, numbering about 1650 forming about 23 per cent of the total population and about 32 per cent of the Hindus. The other castes in order of their numerical importance are the Dushads (112), Chamars (450), and blacksmith (160), goldsmith (100), sweepers (85), barber (60), Maithil Brahmin (30), Dhobi (30), Dom (19) and the rest consisting of Keots, Kurmis, Dhanuti, Anat, Khalka, Suri, etc. (1494).

As in the case of most villages the number of literates is comparatively very small. There is one M. E. School under the control of the District Board. The building was badly damaged during the last earthquake and it has not been repaired as yet due to want of funds and the apathy of the District Board. There are about 150 students of whom 138 are Hindus and 12 Muslims. There is one Mukhtala containing about 45 Muslim students (including 12 girls). There is one Primary School where about 60 students (including 4 girls) prosecute their studies. The extent of literacy is greatest amongst the Zamindar class who are culturally and economically the most advanced. Amongst the poorer sections especially among the landless labourers

the percentage of literacy is very small. The number of those who have passed the Matriculation Examination is seven, three of whom are graduates in Law and two of whom are studying in College. But the village is fortunate in having Babu Rajendra Narayan Chowdhury, B.L., who is a member of the Bihar Legislative Assembly. The Mass Literacy Campaign has not yet been started in the village though it is of prime necessity there as elsewhere.

There are 34 Zamindars in the village. Their total population—including the members of their families—is about 300. They are moneylenders too and are the most prosperous class in the village. The next most prosperous class of people are the thirty families of agriculturists who own fairly big holdings. The third class of people whose main occupation is agriculture but who have certain other subsidiary occupations to supplement their income is important numerically consisting of about 250 families and constituting the second most numerous class in the village the first being, of course, the landless labourers. There are ten families of businessmen whose main occupation is some kind of trade and who carry on agriculture as a subsidiary occupation. They have a decent income and are fairly prosperous. The number of families solely dependent on their hereditary possessions is about 83 consisting of Lohars (blacksmiths), Zohlas and Tanlis (weavers), Haluais (sweet-meat makers), Dhobis (washermen) and Mallah (fishermen).

The most numerous class is that of the landless labourers consisting of 760 families numbering 5023 people forming about 72 per cent of the total population of the village. Though numerically most important, economically they are the most backward and their condition is really pitiable. A few of them had land about 25 years back but due to their contracting debts and being unable to repay them they had to sell off their land to the Zamindars, but most of them are landless labourers from generation to generation. The average number in such families is seven of whom generally two are occupied. Most of them work in the lands of the Zamindars and 'girhastas.' There are others who work as masons, servants, carpenters, bangle-makers and village chowkidars. Though most of them do

not get employment throughout the year the number who emigrate elsewhere is negligible due to their lack of enterprise, want of information and lack of money to undertake railway journeys. They live in miserable dwellings and often three or four of them live in one room. Their average daily income does not exceed 3as. which they get in kind generally in the form of paddy. When they do not get employment they have hardly anything to fall back upon. It is this class which is discontented most, and some of them volunteered to acquaint us with their miserable state of affairs hoping that we could come to their aid.

They live on a very simple diet consisting practically of rice, pulse and some vegetables. Their children are hopelessly under-nourished inasmuch as they do not get practically any milk at all. High birth-rate is accompanied with high death-rate which is mostly due to malaria and their low resisting power. This class has no security to offer and so they have great difficulty in getting loans which they often require to meet their daily needs, not to speak of emergencies. When they are able to get some amount of loan they have to pay a very high rate of interest. The average debt per family is Rs. 20 and so the total debt of this class amounts to about Rs. 14000. All this is unsecured debt and mostly used for unproductive purposes. The agriculturists who carry on some subsidiary occupation have the largest amount of debt as a class. The total debt of this class is about Rs. 22000 the average per family being Rs. 90. Some of them contract debt for marriage, some for maintaining and purchasing the instruments which they use in their subsidiary occupations and some who act as agents of businessmen who have set up creameries borrow money from them to advance it to milkmen for regular supply of milk. So the greater amount of the debt of this class is for productive purposes and those, who are able, pay off the principal and the interest on it from the earnings of their subsidiary occupations. The businessmen who also carry on agriculture as a subsidiary occupation are fairly well-to-do and though they contract debts the latter are mainly for productive purposes and so they have not much difficulty in repaying them and in paying the interest. The

total extent of the loans of this class does not exceed Rs. 5000. The extent of indebtedness is rather small amongst those who solely depend on their hereditary professions—the total being about Rs. 1200. The amount of indebtedness in the case of the Zamindars who are the most prosperous community in the village is practically negligible being only about Rs. 5000. The agriculturists who own big holdings account for Rs. 4500 of indebtedness.

The total amount of debt taking the village as a whole comes to about Rs. 52000 giving an average per family of about Rs. 50. The moneylenders are mostly Zamindars and businessmen. The rate of interest is very high. It is generally half an anna per rupee per month, *i.e.*, 37 per cent per annum. Compound interest is also charged if the interest accruing annually is not paid up regularly. The rate of interest on mortgage loans was about 24 per cent per annum. The passing of the Bihar Moneylenders' Act, 1938, has effected certain changes. By this Act, the interest on mortgage loans cannot exceed 9 per cent per annum; that on unsecured loans cannot exceed 12 per cent and the total amount of interest accrued cannot exceed the principal. But the moneylenders are now less willing to lend money and people have sometimes great difficulty in securing loans. Besides the moneylenders have devised unfair means of avoiding the law, *e.g.*, by getting bonds in which the borrower has to write that he has borrowed a greater amount than the actual sum.

On a critical analysis the main causes of indebtedness seem to be—'marriage expenses,' 'business,' 'family expenses,' 'purchase of bullocks,' 'purchase of implements,' 'land revenue,' 'payment of old debts' and 'building a house.' One pleasant feature appears to be the absence of indebtedness from litigation. The impression obtained from a study of the figures of indebtedness is that the debts are not really great and some is really old debt from previous years; as a whole the people do not seem to be more extravagant or improvident than elsewhere.

The co-operative credit society is conspicuous by its absence in so big a village. The greatest hope for the salvation of the rural masses from the burden of debts lies

in the growth and spread of a healthy and well-organised cooperative movement based upon the careful education and systematic training of the villagers themselves. Apart altogether from the question of indebtedness, cooperative credit offers the only satisfactory means of financing agriculture on sound lines. If the villagers are to be contented, prosperous and happy the cooperative movement must be regarded as deserving all the encouragement which it lies within the powers of the public and provincial governments to give.

The village boasts of a fairly large market held twice a week—on Wednesday and Saturday. The area of the market-place is about 20 bighas. There are about 28 huts owned by one Zamindar who gets Rs. 60 annually as house-rent. Those sellers who have no hut, pay one or two pice to the landlord per every rupee of their sale according to the commodity sold. This market was formerly a bigger one as cattle also used to be sold here but since the cattle market has shifted to a nearby village its importance has considerably dwindled. Commodities to be sold come from the neighbouring villages and of course from the village itself. The nearest central market is at Madhubani reached by the *kachcha* District Board road. After heavy rains this road is impassable for three or four days, then it dries up and the ground hardens. For transport in the rainy season, either extra bullocks have to be used or the loads of the carts greatly reduced. The ordinary means of conveyance are bullock-carts. The chief articles sold in the market are: the different kinds of corn, pepper, hardi, adi, dhania, gur, fish, meat, vegetables, pottery, lac ornaments, handwoven cloths, fans, baskets and agricultural implements. The *kachcha* seer of the village is equivalent to 100 *tolas*, i.e., 20 *tolas* more than the standard seer.

The system of land-tenure of the village deserves careful study. There are 34 Zamindars—all Bhumihar Brahmins—who own most of the land. Bakhasht land forms 55 per cent of the total area and there is a tendency towards its increase. This is because of the confiscation due to arrears of rent due to Zamindars. The average rent per bigha is Rs. 2/12, which is realised in four kists (i.e., times)

a year. The land revenue per bigha is 8 as. on the average and the cess 5 pice. The nakdi land covers about 1300 bighas forming the greater part of the arable land. There are only 70 bighas of Bhaoli land. Fallow land known as 'Gairmazarua Khas' amounts to 100 bighas and there are about 60 bighas of land belonging to all villagers (known as 'Gairmazarna Am').

There are mainly two kinds of soil—'Dhanhar' lands meant for paddy crops and 'Bhith' lands which yield *rabi* and are at a higher level. Dhanhar and Bhith lands can be subdivided according to the descending order of fertility into Kewal (best), Dorns (intermediate) and Balkus (worst).

The principal crop grown is Kharif inasmuch as Dhanhar occupies about 10 per cent of the arable lands. Khesari is grown in ricefields. Gram is grown in the fields after the harvesting of rice. There are about 150 bighas of land in which 'bhadai' is grown. Potatoes and other vegetables like onions, cabbages, brinjals are grown generally near about the dwelling-houses where they can be better looked after. The annual produce per bigha varies according to the nature of the soil from 7 to 20 maunds in the case of 'dhan,' 1 to 6 mds. in the case of khesari, and 6 to 20 mds. in the case of wheat, barley, mustard, peas and arhar.

The average produce per bigha is about 13 maunds and the total expenditure over cultivation is about Rs. 7/8 per bigha. Manure is not used to any considerable extent, most of it being burnt in the form of cowdung cakes. No improved implements or selected varieties of seed have been introduced. No improved methods of cultivation have so far been adopted; the same kind of plough and other implements are in use, as have been used from time immemorial. There is no Demonstration Farm in the neighbourhood.

The Zamindars are not mere rent-collectors. They possess lands and cultivate them with their bullocks and ploughs. There is also the custom of employing the ryots' plough and bullocks when the latter have no work with them. All the Zamindars live in the village and as such the question of 'absentee landlordism' does not arise. Most of the

Zamindars carry on grainlending business too. The rate of interest varies from 25 to 50 per cent. Then there are Zamindars who are Zamindar-*cum*-Kisan inasmuch as they possess both ryoti and zamindari lands. Most of the lands have passed from the hands of the ryots to those of the Zamindars as Bakhasht land. But the usual practice is that those lands are again given to the same ryots on 'Batai' (i.e., half-and-half) or 'Mankhar' or 'Manhunda' system. In 'Batai' the maliks take half the produce from the field throughout the year but in the case of 'mankhar' they take half of only one of the produce—mainly paddy—and the ryots are at liberty to grow whatever they like after the paddy season is over and take all the produce themselves. This settlement takes place every year. But these days due to the Kisan Movement the Zamindars have been frightened and they are reluctant to make such settlements with the ryots.

The difficulties of agricultural development are many. The fragmentation and subdivision of land and the excessive number of superfluous inefficient cattle are serious handicaps. The Agricultural Department is carrying on an agricultural campaign on a small scale. But the ignorance, prejudice and conservatism of the people are obstacles in the path of progress. The ordinary agriculturist is slow to adopt new methods or new crops because of the above causes. Thus only spade-work has been done in this direction. Without fuller cooperation of the masses with the state no progress can be achieved in this direction.

The village industries are very few and even those which are there are unorganised. The only important industry which is well-organised is that of creamery. Cream is manufactured and butter too and the products are sent to Madhubani. For improvement of the village industries the chief needs are the stimulus of new ideas and the provision of adequate instruction and advice on the commercial side. But as the Agricultural Commission point out "the opportunities which they present for improving the condition of the rural population are extremely limited and as a general principle it may be laid down that the chief solution of the problems of the cultivator lies in promoting the intensity and diversity of his agriculture." It is essential that village

industries should be organised on a cooperative basis if they are to survive increasing competition.

The standard of living is much the same for all the inhabitants who all eat practically the same kind of food except the Zamindars and the few fairly prosperous agriculturists and businessmen. Food consists mainly of rice, pulses and a few vegetables. The richer classes use more of ghee, oil, milk, butter, etc., which the poorer classes can afford to use only on ceremonial occasions. The use of tea is not common among the people who can afford it. Mill-made cloth is used for clothing as the people say that it is cheaper than homespun cloth. The only difference between the clothing of the owners and menial tenants is that the former buy a better class of cloth than the latter. There is not much difference in living standards between the comparatively rich and the poor. The wives of the former have more gold ornaments than the others; they wear them, however, only on ceremonial occasions and ordinarily there is no difference in this respect between the women except that women of the richer classes are *pardanashin* and have little work whereas those of the poorer classes have to perform most of the household duties and have sometimes to work outdoor to supplement their meagre family income.

Rural uplift has, of late, attracted a great deal of attention of the public and of the state. Permanent results can be obtained only by a concerted effort at village uplift; economic, social as well as intellectual. This would mean providing clean villages, clean drinking water, adequate medical facilities, improved means of agriculture, cottage industries, compulsory primary education, village libraries and reading rooms, lessons to the villagers regarding the dignity of labour, cooperative credit societies to help them with cheap credit, measures to kill their age-old fatalism by demonstrating that diseases and pestilences can be successfully overcome, improvement in the status of women and measures to make the villagers give up all their unhealthy, uneconomic and religious-ridden customs.

“Neither by waving the National Flag nor spinning your allotted quota of cotton on the *charka* can you win Swaraj but only by constructive work for the masses, only

by actual service to your countrymen can you achieve it.” This advice of Dr. Rabindra Nath Tagore to our people is very significant. “The social worker can scarcely expect the halo and popularity of the political worker or even Government appreciation but he can have the satisfaction of having done his bit to lessen the misery and suffering around him, and that is the prime object of LIFE.”

SOME ASPECTS OF INDUSTRIALISATION IN INDIA

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The publication of the Report of His Majesty's Senior Trade Commissioner for India, Burma and Ceylon for the year 1937-38 has raised a storm of protest from all sections of the public in this country. The political propriety, on the part of a Trade Commissioner of one country, to comment on the industrial policy adopted in another country may well be disputed. Economically speaking, it should not be ignored that the Report of the Senior Trade Commissioner raises certain fundamental economic issues which deserve careful scrutiny and consideration at the hands of those who are interested in the rapid economic progress of this country, on essentially sound and healthy lines. On page 29 of his Report, the Senior Trade Commissioner makes the following remarks:—

“ Indian public men, both politicians and industrialists, seem to be imbued with a conviction that the more domestic production is substituted for imports until the latter are gradually extinguished, the more prosperous the country will become. One never hears a doubt being expressed as to how such a policy could be carried out simultaneously with the maintenance of a considerable excess of export of agricultural produce on which the whole economic system of India is based. By what means, it will be possible to receive payment for an export of Rs. 140 crores of raw-materials and produce alone (which was the value shipped in

1935-36) except by the receipt of goods and services is a problem to which reference is never made. The policy of maximum industrialisation, if followed to the lengths contemplated by the present Congress authorities and the Provincial Governments, must inevitably lead, firstly, to a serious clash of interest with the agricultural element, which constitutes nearly 70 per cent of the population, secondly, to a crisis in India's finances, as the Government of India rely upon the customs receipts for some 60 per cent of their revenue and, lastly, to the collapse of the financial and economic fabric of the Government of India which is depending on an excess balance of exports, in order to meet the Indian financial commitments in London (amounting to a sum of Rs. 50 to 60 crores per annum) and to maintain the exchange."

Broadly speaking, in the remarks quoted above, Sir Thomas Ainscough has raised the three following issues:—

- (a) the effects of protective tariff on the volume of imports into India and, ultimately, on the proceeds of the customs duties and the financial stability of the Government of India;
- (b) the effects of protective tariff, primarily, on the volume of imports into India and consequently on the Indian exports to other countries; and
- (c) the effects of protective tariff on the balance of trade position of India with U.K. and the exchange stability in India.

Let us examine these three propositions and see whether the anxiety expressed by Sir Thomas in these remarks is justified by reference to economic theory or economic practice—either in India or the world over.

- (a) The effects of protective tariff on the volume of imports into India and, ultimately, on the proceeds of the customs duties and the financial stability of the Government of India.**

Sir Thomas points out that the pursuit of the present policy of protection will, in course of time, lead to a curtailment of the total value and volume of imports into India and a serious decline in the proceeds of the customs duties. As the Government of India depend for nearly 60 per cent of their revenue on the proceeds of the customs duties, such a decline would spell a veritable collapse for the financial structure of the Central Government in this country. If this proposition merely means that the imposition of a protective tariff would cause a relative decline in the proceeds of the customs duties, no one need dispute it. Because, it is a common place of economic theory that the acid test of a protective duty, in contrast to a revenue duty, is that after the imposition of the protective tariff, the volume and value of imports admitted into a country must show a relative decline. If, on the other hand, a decline in the proceeds of the customs duties, on the scale conceived by Sir Thomas Ainscough, is likely to occur in the near future, it must, surely, cause great anxiety to those who are entrusted with the maintenance of the financial stability of the Central Government in India. There is nothing, however, in the economic history of most of the progressive and industrialised countries in the world like Germany, U.S.A. and others, to justify such a proposition. The economic history of Germany and United States, in the early days of their industrialisation, shows that the imports from United Kingdom into these countries tended to expand, rather than decline in those years. There is a consensus of expert opinion that the rapid industrialisation of backward countries like India and China, with the inevitable increase in the level of employment, incomes and the standard of living associated with such industrialisation, should be regarded as a factor which would open up greater opportunities of profitable trade for the highly industrialised countries in the West. In the long run, therefore, with the

increase in the incomes and the standard of life of the masses in this country, it is reasonable to suggest that the imports would show a remarkable advance over the present figures, as is borne out by the historical experience of most of the industrialised countries in the West. Clearly, it is true that the character of the trade between India and the world will not be the same as it is today, and India is bound to import more and more high-grade quality goods and specialties and export semi-manufactured goods, instead of simply exchanging raw-materials and food-stuffs, in return for finished goods. There is no reason, therefore, to suppose that the rapid progress of industrialisation would, in the long run, lead to a serious decline in the volume of imports, and, ultimately, to a considerable reduction in the proceeds of the customs revenue of the Government of India. It is possible to argue that this reasoning is true, so far as the long-run effects of industrialisation are concerned; but, during the period of adjustment in the short-run, India is bound to experience the difficulties, mentioned in the above proposition. I think that the validity of this short-run argument depends largely on the tacit assumption that our industrialisation is going to be a sudden and a rapid process. In my opinion, it is not legitimate to suggest that we can industrialise the country overnight. Industrialisation will, necessarily, be a gradual and a slow process and during the time involved in such a slow process, it is not unlikely that the necessary financial adjustments could be made. Even assuming, however, for the moment that the proceeds of the customs duties would tend to fall, I think that the changes brought about in the taxable capacity of the people, as a result of the rapid industrialisation of the country, are not given due weight in such a discussion. If the rapid industrialisation, on the scale conceived by Sir Thomas Ainscough, is likely to take place, it is bound to lead to an all-round increase in the level of investment, employment and incomes of the mass of people in this country. It is quite obvious that an increase in the primary and secondary employment and the consequent increase in the incomes of the people would result in an increase in the yield of the present income-tax, as well as an increase in the number of people

who come within the operation of the income-tax laws. Secondly, the prospects of the imposition of Death Duties in this country are under the investigation of the Central Government, at present. Clearly, it is wrong to expect that the yield from Death Duties in this country, whenever they are enforced, will be at all comparable to the yield of Death Duties in wealthier countries like United States and United Kingdom. But, it should be noted that so far the possibilities of Death Duties or some kind of agricultural income-tax remain to be fully explored in our country. Thirdly, it should not be forgotten that, with the coming in of a National Government at the Centre which would not easily lend countenance to the traditional suspicion that the economic policy of this country is dictated from the City of London, the attitude towards the Excise Duties of the Indian public in general and the commercial community, in particular, is likely to undergo a radical change. Lastly, it is a matter of common knowledge that the main purpose of indirect duties, like the Customs, is to tap that income strata in a community, for the revenue requirements of the State, which do not come within the purview of direct taxes, such as income-tax, super-tax, and the Death Duties. If the financial requirements of the country justify additional taxation in the long run, as a result of a substantial fall in the proceeds of the customs duties—as suggested by Sir Thomas—then, it will be necessary to examine the scheme of a general sales tax on a number of selected articles which do not come within the operation of the customs tariff. The foregoing analysis shows that the apprehension regarding the supposed decline in the volume of imports and the consequential fall in the proceeds of the customs duties have little justification and the remarks made by the Senior Trade Commissioner are unduly alarmist and misleading.

(b) The effects of protective tariff on the volume of imports and consequently on the volume of Indian exports abroad.

Sir Thomas points out that the pursuit of the present protective policy in this country will lead, in course of time,

to a curtailment of the total volume of imports into India and, as in the long run exports pay for imports, such a decline is bound to react upon the volume of Indian exports to other countries. The main implication of this proposition of Sir Thomas Ainscough is that the Indian economy is adjusted to the production of a large volume of staple agricultural products for the export markets and any serious decline in the imports into India is bound to react on the volume of these agricultural exports and thus affect the purchasing power of the mass of agriculturists, which would, ultimately, affect the prosperity of Indian home industries. In my judgment, this is the most profound issue that has been raised by Sir Thomas and it must be squarely faced by all those who are interested in the creation of a balanced economy in this country. It will be seen, on further analysis, that the effects anticipated by Sir Thomas will not be as severe as they may appear at first sight; but, it is undeniable that his proposition contains a measure of truth.

Sir Thomas Ainscough's argument boils down to the familiar objection of the Free-trader against the creation of a Tariff wall. The Free-trader, for example, admits that the imposition of a duty on certain foreign articles which compete with the products of the home industries would cause an increase in price of the commodity in question, and also would lead to an expansion of production and increase in employment in the protected industry. But, the free-trader emphasises that, as, in the long run, the exports pay for imports, the curtailment of imports would lead to a curtailment of exports, and thus the increase in employment and incomes in the protected industries would be offset by a decrease in the export industries and, on the whole, there would be no net increase in the total employment or incomes at home. On the same basis, Sir Thomas points out that the curtailment of imports into India would lead to curtailment of Indian agricultural exports and such a decline in the Indian exports would aggravate the present deplorable position of the Indian agriculturist. It is quite true that theoretically a decline in imports into a country will cause, in the long run, a proportionate decline in the exports from the country to the outside world. But, as Dr. Haberler has

recently shown in his lucid analysis, it is possible to conceive of circumstances in which, in spite of a decline in exports, there may be an actual increase in the total net employment and incomes in a country. A simple case would make this point quite clear.

For example, let us suppose that a country decides to impose a tariff duty on foreign imports which compete with the products of the home industries. After the imposition of the duty, the purchasing power which was previously spent by consumers on imported goods and used by the foreign recipients to purchase exports from the country in question would be spent by the consumers on home-produced goods and may be used by the recipients to purchase goods from their own export industries, so that a new home demand for the products of the export industries may replace previous foreign demand. In effect, the export industries work now for the protected industry and cater for the expanded home market instead of the foreign markets. Of course, it is possible that the demands of the newly employed works in the protected industry may not be for the same goods and commodities which the export industries may be producing. Any change in the direction of demand of the recipients of the additional incomes may clearly need a re-adjustment of production in the export industries. If there is large-scale unemployment or under-employment of resources at home, it is possible that the additional demand of the recipients of the additional incomes may reduce unemployment in the branches of industry to which the new home demand flows. Whether the export industries would be able to make the necessary production re-adjustments, in response to the change in the direction of demand, largely depends upon the specificity of the factors of production employed in the export industries. For example, if the factors of production are specific (*i.e.*, meant to produce only one commodity) like the factors of production in the British Coal Industry in the post-war years, then clearly, the export industry cannot escape the loss arising out of the falling off of exports abroad. If, on the other hand, the factors are relatively less specific, it may be possible for the export industries to make the necessary production

adjustments and the initial imposition of a tariff duty may lead to a net increase in the total employment and incomes at home. This analysis will show that the magnitude of the loss to the export industries, consequent on any curtailment of the imports into a country, largely depends upon the following three factors:—

1. the ability of the expanded home industry to absorb the products of the export industries;
2. the ability of the export industries to make the necessary production adjustments in response to the changes and conditions of demand; and
3. the general monetary situation in the country.

Provision of an assured market for the exportable agricultural surplus must be the supreme consideration in assessing the effects of industrialisation on the general progress in a predominantly agricultural country like India. In considering the effects of industrialisation on the position of our agriculture, one has to bear in mind the following factors:—

- (i) How far the expanding industries at home would provide an alternative market for the products of our agriculture and thus absorb our agricultural exportable surplus?
- (ii) How far it will be possible to bring about the necessary adjustment in the character of our agricultural production to suit the changed conditions of demand in the expanding home industries?

The acid test of the efficiency of an economic system is its ability to adapt its productive capacity to the changing conditions in demand. It follows from this that there is no reason to lament over the fact that, as a result of the changing conditions of demand in India or in the outside world, we may be required to bring about adjustments in our productive capacity at home. In considering the whole problem, we cannot afford to ignore certain changes which have occurred in the character and the direction of our foreign trade in

recent years. First, it should be remembered that if the ultranationalistic policies adopted by the European countries continue to be their long-term economic policy, then, the hopes of reviving our staple agricultural exports, like oil-seeds to other countries to pre-depression level must be regarded as far from bright. Secondly, it is interesting to note that Japan has recently adopted the exchange control policy similar to the one which prevails in Germany, and if Japan persists in this policy after the termination of the Sino-Japanese struggle, then the hopes of reviving our exports of staple raw-materials like raw-cotton and pig-iron to Japan, must also be regarded as unduly optimistic. These illustrations will show that on the supply side if the present trends in the policies of various States continue, then the question of finding alternate markets or creating an additional market for our exportable surplus of food-stuffs and raw-materials such as, cotton, oilseeds and pig-iron at home, may be forced upon us as a matter of necessity, rather than as a matter of choice. In this connection, it should also be remembered that we are importing large quantities of rice from Burma and large quantities of long-staple cotton from Egypt and other countries, and if the developments, mentioned above, materialise, we may be forced to examine how far we can make the production adjustments in our agriculture to replace foreign imports of rice and cotton, with a view to diminish our dependence on the foreign markets for our exportable surplus of foodstuffs and raw-materials. I have attempted to show, in examining the first proposition of Sir Thomas Ainscough, that there is nothing, either in economic theory or economic practice, to justify his view that, in the long run, the industrialisation of the country would result in a curtailment of imports and, consequently, a decline in exports. But, it is undeniable that the transition from an economy based mainly on the export of raw-materials to one based on a more balanced distribution between agriculture and industry is not likely to be without difficulties and temporary maladjustments and, I have analysed certain considerations which must weigh with those who are interested in a rational planning of agriculture and industry in this country.

(c) The effects of tariff on the balance of trade position of India with U.K. and the exchange stability in India.

Sir Thomas Ainscough points out that the pursuit of the protective policy in this country has adversely affected the balance of trade position of U.K. with India. He deplores the fact that the favourable balance of trade of U.K. with India, which was to the extent of Rs. 60 crores in the pre-war years, has changed into an unfavourable balance of Rs. 12 crores in 1937-38. In this connection, it must be remembered that we cannot get a true picture of the total imports from U.K. to India and the total exports from India to U.K. without taking into consideration the large volume of invisible imports and services such as Banking, Insurance and Shipping which U.K. sells annually in the Indian market. Furthermore, it should be noted that there is nothing in the theory of international capital movements which justifies the Senior Trade Commissioner's lament over the decline of U.K. imports into India, relatively of Indian exports to U.K. It is a matter of common agreement among economists that the only way in which creditor countries can accept the payment of interest or the repayment of capital is by the creation of an import surplus of goods and services equivalent in value to the interest payment or the capital repayment. It was merely an accident of economic history that India made her payments to U.K. by the export surplus which she had with the European and non-Empire countries in the pre-war pre-depression years. Now that the European countries like Germany, Italy and India's best eastern customer like Japan have adopted the policies of equalising their total payments out, with their total payments in, on international accounts, it is difficult to see how India can hope to have an export surplus in her international trade account with these countries. The only rational way by which India can make her payment to the United Kingdom is, either by expansion of her exports to United Kingdom or curtailing her imports from U.K. If U.K. refuses to create an import surplus in order to receive her payments and dividends, then the economic forces would

tend to work in such a way as to reduce imports of U.K. into India and create the necessary surplus in India's international trading account.

In the foregoing analysis, an effort has been made to examine the implications of the fundamental issues which are raised in the Report of the Senior Trade Commissioner. The analysis shows that the remarks of the Senior Trade Commissioner about the effects of the protective tariff on the volume of imports and, ultimately, on the proceeds of the customs duties, as well as his remarks about India's balance of trade with U.K. and India's ability to maintain her exchange have no foundation in the realm of economic theory or economic practice and are unduly alarmist and misleading. In pointing out the effects of the industrialisation of the country on the position of our agricultural exports, the Report has done a great service in bringing out into clear relief, that the provision of an assured market for our exportable agricultural surplus is a matter which cannot be neglected by those who are out to plan agriculture and industry in this country.

REVIEWS OF BOOKS

A CENTURY OF BANK-RATE, by R. G. HAWTREY. (Longmans, Green & Co.) 1938. Pp. 328. Price 10s 6d. net.

The scope of this book is much more than what is indicated by the title. The earlier half of the work contains a historical survey of the relation between bank-rate and gold in pre-war Britain. Mr. Hawtreay demonstrates how the practical application of the bank-rate evolved in the 19th century was purely empirical. Starting from the hypothesis that a rise in the rate of discount must retard the creation of credit, the Bank of England raised the rate whenever its gold reserve threatened to prove insufficient. Following the 19th century tradition, Mr Hawtreay emphasises the influence of changes in bank-rates on traders' stocks of goods. It need hardly be said that this belief in the mechanism of bank-rate and complacency of Mr Hawtreay, stand in marked contrast to the views of writers like Keynes and Harrod, who on the basis of recent British monetary experience, have stressed the inherent defects of the technique of bank-rate. In one of the recent studies issued by the University of Oxford under the editorship of Harrod, it is pointed out that the connection between bank-rate changes and traders' stocks of goods is at best loose or remote.

The latter portion of the book contains an admirable discussion of the relation between long term and short term rates of interest. Instead of establishing any interaction between the two types of interest rates, the author points out that both sets of rates are exposed to the common influence of the investment market. Investment in short term and long term investments, being alternatives open to the ordinary investors, any putting up of the bank-rate, by making investments in short term funds more attractive, leads to a rise in the long term rate of interest. In his examination of Keynes' Theory of Interest Rate (pp 195—207) Mr. Hawtreay emphasises the influence of monetary authorities, on the rate of interest prevalent at any moment in a community. The reason why, sometimes even a moderate rise in bank-rate, has proved effective, as a deterrent, is that it produces changes in traders' expectations, which ultimately result in banks charging high rates to customers, and keeping down the volume of credit, by refusing to lend to less eligible borrowers. As the importance of psychological factors, such as traders' expectations was recognised in the 19th century bank-rate tradition itself, Mr Hawtreay observes that there is really no large incompatibility between that

tradition and Mr. Keynes' insistence on the role of psychological factors, in his exposition of the theory of the rate of interest

But as Mr. Hawtrey himself points out (p. 250), if the efficacy of the bank-rate depended ultimately on psychological reactions, it will be precarious; for, if people cease to believe in it, the reactions would no longer occur. But these reactions are in reality no more than a reinforcement of a tendency which in many cases already exists. Bank-rates can be used to contract credit only when and if they are raised high enough, though there is a limit to the power of stimulating an expansion of credit by lowering the bank-rate. Recent British experience has forced Mr. Hawtrey to admit the comparative futility of changes in interest rates, as a means of getting out of present and future depressions. "The extreme cheapness of money," writes Mr. Hawtrey in 1932, "was responsible for what he has called a credit deadlock. "With bank-rate at 2%, there were no downward adjustments which could be made to revitalise the trade and help it on the way to recovery." While aware of the limitations of the weapon of bank-rate changes, Mr. Hawtrey is no indiscriminating enthusiast of such panaceas as public works and budget deficits. As an instance of his orthodoxy, I may quote his statement (p. 268), "Even modifications of taxation, or subsidies to consumers, though more manageable than a programme of public works, could hardly be applied with the same delicacy of adjustment as bank-rate. Indeed they are not intended to do the work of bank-rate; they are offered as a palliative, in cases where, a severe depression already exists. They are not defended as an improvement on bank-rate, but their advocates simply assume as axiomatic that bank-rate does not work." Mr. Hawtrey would imply that such proposals as those made by Harrod and Meade are the result of a too pessimistic outlook on the efficacy of bank-rate changes

With the growing dominance of the Government in the British Money and Capital markets (Vide Hicks' *English Public Finance*, 1920—36), we may doubt if it would be possible to burn away the present-day idols of public works and remissions in taxation, and exclusively worship the old bank-rate tradition of the Bank of England.

No one but Mr. Hawtrey, with the Statistical establishment of the British Treasury under his control, could have provided for us the numerous appendices, which are sure to be useful to students of the comparative rates of discount of the Bank of England, Bank of France, Gold Exports and Imports between 1850 and 1931. The exhaustive index adds greatly to the usefulness of the work.

M. K. MUNISWAMI.

DR. LONGFIELDS' THREE LECTURES ON COMMERCE AND ONE ON ABSENTEEISM. No. 4 of the Series of Science works on Political Economy, reprinted by the London School of Economics. 1938. Pp 111 Price 6s

One has only to peruse the three lectures of the author delivered in the University of Dublin, in 1834, to realize the rigorous manner in which doctrines of Mercantilists' were combated in England, in the earlier half of the nineteenth century. Some of the appendices are extremely interesting thus in one note, Dr. Longfield propounds the modern doctrine that trade with any particular country has two distinct possible effects. One to furnish us, with the natural products, or the manufactures of that country: another to increase or diminish the price of our countrymen's industry, in all other countries. In another appendix, criticizing M'Carulloch the author develops the modern doctrine of the incidence of taxation of commodities according to which, the incidence of a tax, may be distributed amongst many classes, sometimes including even the wage earners, employed in the making of the exported or imported commodities. It required certainly rare courage to denounce English absentee landlords of estates in Ireland, as the author has done, in those days. At the outset, in his lecture, he states and examines dispassionately the argument, that from the standpoint of economics, there is not much difference between (see page 88) resident and absentee landlordism. He takes the view that the economic effects, relating to the production, accumulation, consumption of wealth are all produced through the medium of moral causes. "If we stop at the direct economic effects of absenteeism we cannot come, to any practical result."

The author has this interesting argument in favour of resident landlordism "When improvements are made, or when good of any kind is done by an absentee, there must be plans and recommendations and correspondence with an agent, and all those circumstances, which give publicity to an operation: but the influence of a resident is constantly, but imperceptibly at work and perhaps the greater part of the good effected by a resident landlord, is done without any fixed plan, of which he could give an account." I wish in all cases the beneficial influence of a resident landlord were always at work! The lectures make stimulating reading.

M. K. MUNISWAMY.

THE OILSEED TRADE OF INDIA, by J C. BAHL, B.A., M.Com., F.R.E.S., F.R.G.S., published by New Book Company, Bombay. 1938. Pp. 314+xv. Price Rs 20.

India is one of the largest oilseed producing countries of the world, and is perhaps the producer of a larger variety of oilseeds than any other country. The author estimates the oilseed crop at about 8 million tons and the area under the crop at over 22 million acres. A large portion of this produce is exported to foreign countries, chiefly, U. K., Holland, France, Germany, Italy, Belgium, and U S. A. Since the Ottawa agreement the export of our oilseeds has considerably increased. While we export large quantities of oil-seeds we import oil-seed products of much more value. This raw material can easily be converted into oil-seed products if India pursues a policy of industrialisation. Some people suggest an export duty on oil-seeds to restrict the export of this valuable commodity. Another difficulty is about our Railway Rates policy. Our Railway rates have been so framed that they encourage the export of oil-seeds to the port towns. Part of it is consumed in the port towns and the rest is exported to outside the country. This has checked the growth of oil-crushing industry in the interior. Although this grievance is of a long standing, and has been pointed out by several committees and commissions it has not yet been redressed. There is also need of a proper classification of seeds for purposes of fixing Railway rates.

We congratulate the author and the publishers on bringing out a really authoritative work on the oil-seed trade of India. The learned author has been thorough and painstaking in the treatment of his subject. He has discussed the problem in all its aspects, as will be clear from the table of contents given below :—

Chapter I—World Production and Trade in Oil-seeds.

„ II—Oil-seeds in India.

„ III—Marketing of Oil-seeds.

„ IV— „ „ „ (Continued).

„ V— „ „ „ (Continued).

„ VI— „ „ „ (Continued)

„ VII—Exportes of Oil-seeds.

„ VIII—Finance of the Oil-seed Trade.

„ IX—The Vegetable Oil Industry.

„ X—Principal Needs of the Oil-seeds Trade.

The book is full of statistics, diagrams and charts which are very informative and helpful to the reader. In his last chapter the author has made a number of recommendations, such as the need of research in oil-seeds, suitable marketing machinery, good roads and means of communications, standardization of weights and measures, warehousing, Oil-industry Committee, like the Indian Central Cotton Committee etc. No body, having the interest of the industry at heart, will differ from the author as regards the recommendations. Our Central and Provincial Governments are already doing something in connection with the marketing of produce and the improvement of the quality of seed. We hope in time to come the Governments and the Commercial community will pay due attention to the needs of this growing industry.

We believe that the book is useful to the trader as well as the serious student of the subject. It is in the fitness of things that its introduction is written by Mr. G. N. Chapman, Ex-Secretary International Association of Seed Crushers, London, who has been actively engaged in the oil-seed trade for over fifty years.

K. L. GOVIL.

ALL-INDIA INDUSTRIAL AND COMMERCIAL DIRECTORY, 1938-39, edited by M. G. DESAI, B.A., and G.R.S. Rao, B.A., published by the All-India Industrial Federation, Medows House, Medows Street, Fort, Bombay. Price Rs. 2.

The book under review is one of the few directories published in this country. There is dearth of information on commercial and industrial subjects. The Government has been indifferent and the private enterprise had neither the means nor the capacity to undertake commercial and industrial surveys. But of late, our leaders of thought have directed their attention to the commercial and industrial needs of the country. Sir M. Visveswarayya is one of them. He is always crying hoarse, and rightly too, to increase the national dividend. Sir Purshottamdas and Dr. Bhatnagar, among others, stressed the need of commercial and industrial education in their convocation addresses. It is, therefore, a happy augury of the times.

Looking at the Directory as an attempt in the right direction we congratulate the editors and publishers of it. But we do not consider it a standard work. There is considerable room for improvement both in the arrangement as well as the subject-matter.

We admire the frankness of the publishers when they say in the preface, "Frankly, we are ourselves not content with what we have been able to do, but with increasing support and co-operation from Merchants, Manufacturers and Directors of Commerce and Industry in the Provinces and Indian States, we hope to achieve better results in future."

Section I gives a number of articles on commercial and economic subjects. Though not very informative, some of them are by persons who can speak and write with authority. The other sections are :

Section II—Reviews of Commercial Houses and Industrial Establishments.

Section III—Insurance and Banking in India.

Section IV—Commerce and Industry in Indian States.

Section V—General Information.

Section VI—All-India Industrial Directory.

Section VI "A"—All-India Commercial Directory.

We would suggest a separate section on Indian Transport which should include railways, roads, air and sea transport.

We commend the Directory to the public and wish it a better success in future.

K. L. GOVIL.

ELEMENTS OF INDIAN COMPANY LAW, by SOHRAB R. DAVAR. Published by Butterworth & Co (India), Ltd Pp 660. Price Rs. 10.

Prof Davar is a prolific writer of books on commercial subjects. His books on Commercial Law, Accounts, and Business Organization are too well-known to need any mention. The book under review is in its third edition. Besides being a very old and experienced teacher of commercial subjects, the author had the unique privilege of being a member of the Committee appointed by the Government of India for Companies Act Amendment (1936). He is also the author of a Manual of Indian Companies Law and Practice with forms and precedents in two volumes. This manual is an exhaustive treatise on the subject.

The 'Elements of Indian Company Law' in its present form is very much enlarged and brought up-to-date. The drastic changes brought about by the Act of 1936 are incorporated in the book. As an appendix the author has given the new Indian Companies Act. The book is quite handy and useful for students of commerce preparing for University and other examinations. It is also good for ready reference by professional accountants and secretaries. We commend it to the student community for whom it is primarily meant.

K. L. GOVIL.

THE CHICAGO CREDIT MARKET, by MALCHIOR PATYI. The University of Chicago Press. Pp 448. Price \$4.00.

"This book offers a description and analysis of the functioning of the unit system in commercial and investment banking . . . it is not only a penetrating analysis of a local and regional set up, but brings out the broader comparisons with national and international finance as well."

"This study is a part of a larger undertaking which has been under way for a number of years, dealing with the recent economic, social and political trends and emerging problem of the metropolitan region of Chicago . . . A series of studies is planned . . . To this collective task, the present study contributes its part."

These extracts from the flaps indicate the nature of the study, the object with which it has been undertaken, and the persons for whom it is intended.

So far as the contents of the book are concerned it is divided into six chapters.

Chapter first brings out the importance of Chicago as a credit centre and compares it with the leading financial centres of U. S. A. and Europe.

The second and third chapters discuss the nature of the capital market, the former dealing with the saving institutions and the latter describing the security market of this region.

The fourth chapter discusses the nature of the money market, and examines the different forms of credit transactions and loan operations, which are current in this region.

Chapter fifth is devoted to the discussion of the Unit banking system and the author gives reasons why it obtains in this region, in place of the branch banking system found elsewhere.

The sixth chapter deals with the concentration of the money-market in the form of groups and chains

Of the appendix about 170 pages contain tables which furnish statistical data relating to the subject.

M. A. HASAN.

LA POLITICA FINANZIARIA BRITANNICA IN INDIA, by DR. MONINDRA MOULIK, D.Sc. Pol. (Rome). Bologna, Nicola Zanichelli Editore. 1938. Pages 250. Price 25 lire.

A work that has comprehensively opened up economic India, both in statistical and factual data as well as in ideology, to non-English readers in Italian is Dr. Moni Moulik's *British Financial Policy in India*. The treatment is realistic and the presentation marked by independent thinking.

Poverty and British rule are the two categories that constitute the economic ideology of this work written in lucid Italian. The author, a Research Fellow of the Bengali Institute of Economics, enjoyed for two years a stipend of the *Istituto Italiano per il Medio ed Estremo Oriente* (Italian Institute for the Middle and the Far East) for researches at the university of Rome, where he later obtained a doctorate in political science. The statistical data utilized for this work are quite recent and the author has not dwelt at length, except when absolutely necessary, on the older phases of British financial policy in India.

The commercial aspects of the Government of India Act have been analyzed in detail. The author has not failed to bring out into bold relief the reactions of the Indian industrialists and commercial men as well as associations to the statutory guarantees and safeguards such as are considered to be prejudicial to the interests of India. Indian views on the "home charges" and the "economic tribute" paid to Great Britain have likewise been exhibited. He has done justice to the data and the opinions in this connection as well as in regard to the military and administrative finances. The historical treatment of the loans and public debt is an interesting feature. The tariff policy has been described in its repercussions on Indian industries. The chapters dealing with this and the previous topic are quite substantial in facts and

enriched with critical comments and constructive suggestions. There is a short discussion on the transportation policy. Taxation, however, has been discussed somewhat elaborately and its bearings on Indian agriculture have been brought out in a judicious manner.

The chapter on Indian currency and exchange has been interestingly written. In the tenth and the last chapter the author has presented his readers with what may be described as his scheme of financial planning for India in which the constructive proposals in connection with the previous discussions have been placed as the planks of a futuristic programme. His statements are precise and well thought-out.

Dr. Moulik's work has made good use of Government publications and newspaper cuttings. He has tried to be objective in regard to his sources of information, utilizing the different schools of interpretation without bias. The several dozen works quoted by the author exhibit his scientific catholicity and open-mindedness. The work does credit to the economic Seminar of Professor De' Stefani under whose directions it was planned and executed. Italian economists can take Moulik as a dependable guide on Indian economic developments and economic thought.

As a keen economic researcher and as a perspicuous writer on economic topics Moulik deserves appreciation. Besides, he has rendered an important service to Indian economists in general by introducing their contributions and methods of analysis to the milieu of Italian economists and statesmen.

BENOY KUMAR SARKAR.

THE MAN BEHIND THE PLOUGH, by M. AZIZUL HAQUE, Speaker, Bengal Legislative Council and Vice-Chancellor, Calcutta University. Published by The Book Company, Ltd, Calcutta. 1939. Pp. xix, 386. Price Rs. 5.

In this book an attempt has been made to study the problems of land and agriculture in the province of Bengal. The author observes "Nowhere throughout this book have I tried to support any preconceived views nor have I attempted to arrange facts in such a way as to be able to deduce from them any theory of my own." This claim of the author is fairly well maintained in the book and it gives us a more or less full idea of the agrarian situation in Bengal.

The book is rather weak in two points, one where the author has attempted to give an idea of the evolution of Zamindars in Bengal, and two where he has made proposals for changing the existing order of things.

Mr Moreland, in the Agrarian System of Moslem India, has definitely shown that the Revenue System developed by Akbar was not operative in Bengal even during the reign of Akbar himself and that throughout the Mughal period this outlying province of the Empire continued to have a revenue system very much akin to what the Mughals found there when the province was added to the Empire. If this fact is kept in mind, then the origin of most of the Zemindars in Bengal at the time of the Permanent Settlement is to be sought in ancient Chiefs and not in the Aumils and other government officials. That some of the Zemindars with whom Lord Cornwallis entered into a permanent engagement for a fixed quota of land-revenue belonged to the latter class is beyond doubt but that all of them were of this category is what I think not to be correct.

The author has given us a mass of detailed information about practically all the relevant factors that affect the life of the peasantry in Bengal. But for reasons which I have not been able to find, he has failed, in most cases, to draw conclusions and to give us his ideas as to how things could be changed for the better.

Taken as a whole the work is of a very high merit and deserves careful study by all those who are interested in the rural economy of Bengal.

B. G. B.

GENERAL WAGE CENSUS—PART I

REPORT ON WAGES, HOURS OF WORK AND CONDITIONS OF EMPLOYMENT IN THE OILS, PAINTS AND SOAP; MATCH MANUFACTURING AND OTHER MISCELLANEOUS INDUSTRIES IN THE PROVINCE OF BOMBAY. Prepared by the Labour Office, Government of Bombay. 1939

The Labour Office of the Government of Bombay has just published a report on Wages, Hours of Work and Conditions of Employment in the Oils, Paints and Soap; Match Manufacturing and Other Miscellaneous Industries in the Province of Bombay. This report is the fourth of a series in connection with the General

Wage Census which was instituted in 1934 and covered all the perennial factories working in the Province in that year. The first report covered all persons in all occupations in the 221 perennial factories in the Province which were classified under the Engineering Industry and also included all workpeople in engineering occupations and in occupations common to all the remaining perennial factories covered by the Census. The second report covered the Printing Industry and included printing presses proper, photo zinco, fine art and litho presses, type foundries and factories connected with developing films, making gramophone records and developing and finishing photographs, because all such factories had occupations which were commonly to be found in printing presses. The third report covered the Textile Industry and this was divided into four sections covering cotton, wool, silk and hosiery factories. The present report covers all industries which were not dealt with in the first three reports and is divided into the following fifteen sections each dealing with a group of allied industries:—

- (1) Oils, Paints and Soap Industry;
- (2) Match Manufacturing Industry;
- (3) Rubber Crepe and Leather Manufacturing Industry;
- (4) Refined Sugar Manufacturing Industry;
- (5) Chemical and Pharmaceutical Industry;
- (6) Aerated Water Manufacturing Industry;
- (7) Glass Manufacturing Industry;
- (8) Tobacco and Cigarette Manufacturing Industry;
- (9) Flour Milling Industry;
- (10) Paper Manufacturing Industry;
- (11) Dairying, Biscuit and Sweet Manufacturing Industry;
- (12) Tiles Manufacturing Industry;
- (13) Power Laundries;
- (14) Distilleries, and
- (15) Gold and Silver Thread Industry.

The total number of factories included in these fifteen industry groups was 142 employing about 16,440 persons, of which 74 factories employing about 9,717 persons were covered by the first three groups alone.

The Report contains 183 pages and is priced at eleven annas. Copies can be obtained from the Superintendent, Government Printing and Stationery, Bombay. We are sure it would repay perusal.

B. G. B.

INDUSTRIAL LABOUR IN INDIA

INTERNATIONAL LABOUR OFFICE. STUDIES AND REPORTS, SERIES A (INTERNATIONAL RELATIONS), No. 41. Geneva, 1938. Price 7s. 6d. \$2 00.

Although India is still essentially an agricultural country, the recent progress of modern industrialism has made her one of the States of chief industrial importance and entitled her to permanent Government representation on the Governing Body of the International Labour Office.

Moreover, under the new Constitution, India has inaugurated provincial autonomy since 1937 and has entered into a new period of industrialisation. The publication by the International Labour Office of *Industrial Labour in India* comes therefore at a very opportune moment.

With a brief survey of the geography, demography, social institutions, political organisation, and industrial systems of the country as the background, the treatise describes the rise of wage-workers with special reference to those who are employed in organised industry, such as plantation, factory, mining, and transport, and who form the subject-matter of this study.

The development of industrial labour has been followed by the rise of labour legislation, both specific or in relation to the workers in some specific industry, and general, or in relation to the workers in general irrespective of the industry in which they are employed. The development of all the labour measures is described, their provisions analysed, and the methods of their enforcement indicated.

An important question of modern industrial society is that of industrial relations. Since the War, Indian workers have begun to organise themselves, and their legal status has been secured through trade union legislation. Moreover, measures have been enacted by Governments, both the Central and the Provincial, for the settlement and prevention of industrial disputes through the

provisions of such agencies as courts of enquiry, boards of conciliation, and conciliation officers.

There is at present sufficient labour supply for organised industry except the tea gardens in Assam, which still largely depend upon the recruitment of emigrant labour under Government control. Steps are being taken for the suppression of the abuses of indirect recruitment of labour in certain industries. The migratory habit and the illiteracy of the Indian workers makes the organisation of employment difficult, and largely accounts for the excessive absenteeism and turnover, as well as for the inefficiency of the workers, but industrial unemployment, though in existence, has not yet become an important problem.

Woman and child labour has been brought under control, the principles of a minimum age for admission of children into employment have been established, and even a new protected class of young persons between the ages of 15 and 17 years has been created in factories and mines. The night work of women and children, as well as the underground employment of women in mines, have been abolished.

The conditions of work have been brought under regulation by successive measures. The hours of work have been limited in factories and mines and on railways and weekly rest has been introduced in most industries. Health and safety arrangements are satisfactory in new and large undertakings, although much yet remains to be done in the seasonal and non-regulated factories, as well as in small mines and plantations. Social insurance is still limited in its scope, but workmen's compensation law has been passed covering over 6 million workers, and 5 provinces have also adopted maternity benefit measures.

Important measures have been enacted for the protection of wages of workers through the regulation of methods and periods of payment and of deductions of wages. Moreover, measures have been taken by Governments, both the Central and the Provincial, for protection against attachment of wages and imprisonment for debt and the besetting of factories for collecting debts, as well as for the liquidation of unsecured debts.

The rates and levels of wages, as well as the income and expenditure of the family are analysed and discussed. The standard of living, including housing conditions, is far from being satisfactory, and a few welfare activities, whether undertaken by workers, the general public, or employers, to increase workers' amenities, can scarcely cope with the situation.

In brief, the study shows that, although labour legislation has become an important social institution in modern India, the

working, and especially the living, conditions of the labourers are in urgent need of improvement for the development of both national industrial efficiency and general social welfare.

B. G. B.

ECONOMIC ADAPTATION TO A CHANGING WORLD MARKET, by Carl Major Wright. Ejnar Munksgaard, Copenhagen, 1939. Pages 305 Price 8s. 6d.

The changes in demand and supply are well-known categories in economic theory. Their impacts on economic structure are no less important in business practice than in scientific considerations. Economic dynamics is indeed the great reality known to the man in the street. And to-day *homo oeconomicus* is fully conscious in daily transactions that economic activities, dynamic or fluctuating as they happen to be, are fundamentally hemispherical in dimensions, nature and origin. Naturally, therefore, the orientations to the world-economy,—attitudes to the agricultural, industrial and financial developments in the world from China to Peru—have grown into the most commonplace preoccupations of the merchant, the banker, the farmer, and of course of the statesman and the planner.

It is with these adjustments or readjustments of the industrialist, the financier, the businessman and the economic statesman to the morphological transformations of the world-economy,—the international re-localizations—that Carl Major Wright of Denmark addresses himself in *Economic Adaptation to a Changing World Market* (Copenhagen, 1939). A most fundamental consideration with the author is then the transfer of capital and labour from the old to the new enterprises. The problem evidently is not merely one of “private economy,” as known in continental science. From the standpoint of national economy as well nothing is more important than this question of the deflection of resources from one channel to another.

The influence of changing incomes on a group's consumption of certain commodities has been examined at length and the “income elasticity coefficients” exhibited on the strength of recent studies in consumption and standard of living carried on in several countries. The universality of Engel's law is proven to be open to question. The problem of the hours of leisure as affected by income elasticity deserves to be gone into with equal care.

An instance of economic transformation is furnished by the appearance of new products which are not directly competing with already existing products but largely satisfying so far little developed wants. Among consumers' goods Wright mentions electrical household and medical apparatus, refrigerators, gramophones, cosmetics and artificial silk goods as yielding between 1680 and 340 as the percentage of 1928 in relation to 1913. Some of the producers' goods belonging to the same category are wireless sets, printing paper, accumulators, batteries, motor-cars and telephone accessories with 6200—370 as the corresponding percentages. Such realistic studies, if carried on with the data of Asian countries, would not fail to indicate the socio-economic structural changes going on in this part of the world as well.

The question as to whether capital supply is influenced by the interest level and how has engaged Wright's attention and he is convinced that it is incorrect to look upon interest exclusively or chiefly as an income. One of the great realities of practical life cannot be ignored in this connection. Corporations, central and local governments, and social insurance institutions are some of the principal agencies of capital-building. The interest that they have to pay out is more often an expenditure than an income.

For countries like India economic statesmen may accept Wright's proposition that although the industrialization process is more rapid in the new than in the old countries, their trend of industrial development runs parallel with the earliest development in the old countries. This indeed is the conclusion of the "equations of comparative industrialism" to which the present reviewer has been led in the two volumes of *Economic Development* (1926, 1938). In this connection the concluding chapter which is given over to the "Adaptation Problem in Bulgaria" should be eminently suggestive. Wright is convinced that even a poor country like Bulgaria is generally itself able to provide the additional means necessary for adaption to new conditions. India's experience would confirm Wright's thesis that industry offers possibilities for new adaptation as soon as the heavy burden to which it is subject becomes somewhat alleviated or some outside event gives it an unexpected stimulus.

Business cycles constitute the most conspicuous features of economic transformations. In his chapter on "Business Cycle Policy" Wright quotes the Dutch economist Tinbergen who has made an investigation of the effects of different kinds of state interference, first, on the national business cycle, and secondly, on the balance of payments.

Wright's work combines statistical and factual material about international capital movements, migrations, prices, employment,

etc., with analysis as well as generalizations. The data used are mostly continental. He has utilized the sources quite liberally and quotes or summarizes them with adequate details. The study possesses altogether the merit of being a practical handmaid to economic planning as well as a contribution to the theory of economic dynamics.

BENOY KUMAR SARKAR.

WHAT IS WRONG WITH INDIAN ECONOMIC LIFE? by DR. V. K. R. V. RAO, PH.D. (CANTAB.).

This is a small booklet containing 104 pages. Published by Vora & Co. Publishers, Ltd., Bombay. Price Re. 1.

It consists of six radio talks given by Dr. Rao, Principal of the S. L. D College, Ahmedabad on the current Indian economic life. It is a bird's eye-view of the economic problems of our country intended for laymen. For this reason, I think its price ought to have been much less than Re. 1. That, however, is a minor affair.

Dr. Rao has given us a series of thought-provoking short addresses. His views deserve serious attention. The main function of such a small booklet, I suppose, is to start popular discussion rather than preaching of certain ideas as gospel truths. The evils from which we are suffering have been very clearly set out by Dr. Rao. It is as regards the remedies where there is bound to be a great difference of opinion in a vast country like ours. In such a short span of a few pages it was hardly to be expected of Dr. Rao to give the other side of the picture. And the review of such a short work is also not expected to be a long one. I, therefore, cannot but merely mention a few points in regard to which I feel, there is need for far greater lucidity.

Dr. Rao thinks that India requires "industrialisation not merely directly to increase the national income, but also indirectly to do so by facilitating the formation of larger agricultural holdings and thereby putting cultivation on an economic basis." (P. 11.) He also thinks that industries should absorb a larger number of people so that pressure on land should be relieved. As one of the causes of our backward state of agriculture is that "not finding any avenue in industries or other non-agricultural pursuits, people fell back on agriculture. (P. 10) Dr. Rao realises the helplessness of the Indian cultivator "Our cultivator is mostly illiterate. He cannot read or write. He has, of course, no knowl-

edge of what is happening in the agricultural world . . .” (Pp 18-19.) “He goes on making losses, and yet he cannot leave his agriculture because outside it, there is no employment for him . . .” (P. 8.)

In spite of it all Dr. Rao deplores that Indian agriculture has not been machinised “Tractors and reapers there are none, and the old wooden plough driven by a pair of lean and ill-fed bullocks is still the rule in our rural economy.” (P. 18.) “The advent of cheap machine-made imports destroyed the balance of India’s economy, and labour displaced from industries had perforce to resort to agriculture.” (P. 10) But whether the cheap machine-made goods are imported or they come as a result of industrialisation of the country itself, they are bound to have this effect. Besides if tractors and reapers come in, labour will be displaced ‘en masse’ even from agriculture. Industrialisation of the country is bound to affect adversely the industrial bi-occupations of the peasant. We could, perhaps, find some other kind of supplementary occupations for him. Machinisation of agriculture will, however, deprive him even of his main occupation. I do not oppose it altogether. But this consideration at least points to the necessity of ‘pause and ponder.’ Let us have industrialisation by all means. But we must guard against ‘industrialism’ of the Western type which is bound to create a landless proletariat having no stake in the country or even in life. That will inevitably create the same class conflict in our country from which the West is suffering.

Similarly Dr. Rao is a monetary nationalist and a Protectionist. (Pp. 29—54.) We, Indians, have a general aversion to the nationalist economic policies of other countries particularly of Fascists and Nazis. The World is slowly and painfully getting out of this kind of narrow parochialism. We must decide whether we should side with forces moving towards world’s economic unification or with those towards aggressive nationalism. I do not mean that we should not look after our national interests. But in monetary and commercial affairs as in all others, it is better that countries should realise each other’s difficulties and negotiate, and mutually accomodate and adjust one another, rather than each of them should go on digging its lonely furrow. I, for one, therefore, vote for such movements as the Tripartite Agreement of 1936 and strengthening of B. I. S. rather than cheapish imitation of Germany and Italy.

It is strange that Dr. Rao while advocating flexible exchange rate, wants that gold should form the basis of confidence of the Indian Public in the Indian currency and that in the year of grace 1938 too! (Pp. 45—50.)

This review has unintentionally become so long. The end, therefore, may seem to be abrupt. In conclusion I must recommend the booklet to all serious students of Indian economic problems. Dr. Rao very rightly points out the necessity of our improving the lot of agriculturists by means of easy finance, improvement of the arrangements of water supply, new and better methods of farming and developing of co-operation etc. On the whole it is a very creditable performance.

I. M. KAPOOR.

THE STATE AND ECONOMIC LIFE, by Anwar Iqbal Qureshi, Ph.D., of the Economics Department of the Osmania University, Hyderabad (Dn.).

In 208 pages the author surveys the working of the new policy of state regulation of economic activities, which is now predominant in most countries, and comes to the conclusion that it is on the whole futile and wasteful. He feels that there is no ready-made solution for economic ills and approves of a policy of rationalisation. He is critical of bureaucratic handling of economic affairs and frankly declares his faith in economic freedom as an instrument of world prosperity. His criticisms against some of the forms that state intervention assumes are indeed valid but, frankly, it is now too late in the day to argue the case for 'let alone.' It is not a question of faith in particular systems but of given institutions yielding the good that is expected of them. A certain sense of realism and historical perspective is indispensable in appraising the real significance of changing currents of economic thought and action.

Thus there is nothing illogical or absurd in mercantilist policies attaining respectability in the contemporary world. As in the heyday of mercantilism so at present the world is divided into warring or warlike nationalities. Indeed the present-day economics are the economics of a war period in which the sense of nationalism is all powerful. These tendencies may be good or bad. History alone will show; but for the economist and the work-a-day administrator the ends of national policy must be most economically gained. There cannot be a universally and a perennially good economic policy. Changed needs make changed policies.

The internal defects of a policy of unrestricted individualism have been once again laid bare by the last depression. An attempt

completely to replace private by state economy may merit the criticism of the author. But the gradual introduction of the principle of planning and regulation in our predominantly capitalistic structure is not only justifiable but urgently necessary. The rationalisation which Dr. Qureshi approves cannot be introduced on the desired scale unless the State plays a much more positive part than it did in the past. Our economics ought to grow out of our needs. Undoubtedly state regulation and careful social planning are two of the most urgent needs of the time. We may not look upon these as a panacea and we ought to try and minimise the likely evils that they will tend to produce. But the new tendencies are quite genuine, and hence quite correct, methods of meeting the situation.

That there is a regrettable tendency in India to expect the State to do everything must be accepted. Equally well hollowness of the arguments of the full-blooded and unconditional protectionists must be exposed. But if rationalisation of our economic life is to be achieved and if our resources are to be most economically and speedily developed both protection and planning must be resorted to. There are difficulties in the way of an immediate framing or adoption of a plan. Neither data, nor machinery and political power are available. But our objective must certainly be planned and regulated industrialisation.

In respect of key industries the author approves of the grant of subsidies. As taxation in India is wellknown to be regressive it is difficult to accept the view that subsidies will be less regressive in their incidence than tariffs. It is true that the sacrifice will be brought home to the community and control may be facilitated. But then for reasonable protection, as much as for any more ambitious policy, State control is indicated. The fact of the matter is that we cannot now escape from the natural demand of the present state of capitalism, which is social control.

This indeed need not, in fact ought not to, mean the end of legitimate individualism. With a socially inclined individualism we can secure the energy of private initiative and the justice of social union. Through co-operation as much as through other mixed forms of economic activity that are being daily created the best of both the systems may be secured in so far as the pressure of events permits. In doing so the criticisms of the author will be helpful.

D. G. KARVE.

SHORT NOTICES AND COMMENTS BY THE MANAGING EDITOR

REVIEW OF THE TRADE OF INDIA IN 1937-38.

As usual the review is replete with useful information about the foreign trade of India. We recommend it for a close study to all students of Indian economic affairs.

General Wage Census—Part II—Seasonal Factories.

This is a report prepared by the Labour Office of the Government of Bombay containing the results of an enquiry into wages, hours of work and conditions of employment in the seasonal factories of the Presidency of Bombay, during the year 1936. The report is full of interesting data which students of labour conditions in India should make it a point to read.

PROCEEDINGS OF THE SECOND MEETING OF THE CROPS AND SOILS WING OF THE BOARD OF AGRICULTURE AND ANIMAL HUSBANDRY IN INDIA, held at Lahore from the 6th to 9th December, 1937. Price Rs 4 as 2 Published by the Government of India Press, New Delhi. 1939. Pp. 365.

The report of the Proceedings is a veritable mine of information on certain aspects of agricultural economy in India. In all eight subjects were discussed at the Conference. These eight subjects were (1) Soil Survey Work in India, (2) Theory and Practice of Manuring in India, (3) Improvement of bullock drawn Implements, (4) Plant Breeding in India, (5) Water-requirements of Crops, (6) Crop Protection, (7) Present Position regarding Agricultural Statistics, and (8) Application of Statistics to Experimental Methods in India.

From the inventory of subjects discussed at the Conference it should not be difficult to form an idea of the importance of this report to students of rural economy in India. We recommend it to them for a careful study.

B. G. B.

PRESIDENTIAL ADDRESS OF MR. R. G. SARAIYA at a special session of the Bombay Province Co-operative Bank's Conference.

Mr. Saraiya's address is remarkable for its brevity and businesslike outlook. In common with other provinces where the Congress Ministeries hold the sway Bombay Government is very keen to lift the agriculturist masses out of the deep ravine of poverty and indebtedness. Mr. Saraiya in his address has pointed out how by helping the co-operative financing agencies in the Presidency of Bombay Government could help the agriculturists materially.

We are in entire agreement with Mr. Saraiya that unaided co-operative financing agencies could hardly take a serious hand in the scaling down of existing debts and that here Government should undertake their due share of the loss. The only principle on which central co-operative financing agencies can be worked successfully is the principle that they should follow strictly the ordinary rules of business. If the Government want them to depart from this to a certain extent so that the existing burden of the members of the primary societies may be lightened, they should make it possible for the central financing agencies to do so.

Again if the business of the central financing agencies is to be extended so that they may meet all the various and expanding requirements of the members of the primary societies, then Government should undertake to make loanable capital available to the financing agencies at a reasonably low rate of interest. This the Government can easily do by borrowing at home and abroad and then lending the proceeds to the central financing agencies. But we do not agree with Mr. Saraiya that Government should place its own revenue resources or reserves with the co-operative financing agencies without any interest. We in India must learn to expect nothing for nothing, and should always be prepared to pay for whatever we want to have. The attitude of beggary has never made any nation rich and prosperous and above all self-respecting. Co-operation, if carried on proper lines should be perfectly capable of taking care of itself without any alms either from the Government or from the public.

We have read with great deal of interest Dr. Katjus' Scheme and hasten to congratulate the learned Doctor on placing before the people of the United Provinces a scheme, in our opinion, absolutely sound in essentials. One great merit of the scheme adumbrated by Dr. Katju as that of the scheme by Hon'ble Pandit

Dwarka Prasad Mishra* is that both recognise the village as a living organism and both seek to develop the village not limb by limb but as a whole. The other is that both seek probably unconsciously to go back to the indigenous system of rural self-government. The idea of multiple purpose society is as old as the hills in India, and this type of society was in perfect working order in the Presidency of Madras more or less up to the end of the seventeenth century. We have beautiful pictures of the constitution and functions of such societies in Dr. Radhakumud Mukerji's book on Local Self-Government in Ancient India as also in a number of other works on socio-political institutions of ancient India. But the institution died out as did so many other things during the British Rule in India.

It is welcome news, therefore, to find that in our Province an attempt is to be made to resuscitate village life through a channel which is familiar to the native genius.

We may, without meaning any offence, take the liberty of drawing the attention of Dr. Katju to the scheme of Mr. Mishra, as in our opinion in certain respects that scheme is more comprehensive and realistic, as it fully exploits the idea of regional development—idea which the sooner it is placed in the forefront of all our schemes of development the better for us. Again, we may point out that in a multi-purpose society as envisaged by Dr. Katju in his scheme what we shall need ultimately will not be only one working or executive committee, but a number of such committees, elected annually for each specific purpose or a group of allied purposes, as was the practice under the ancient Indian system. In short what we have to do is to revive the ancient Indian village system, and to revivify it with the help of all the discoveries of modern arts and sciences. For this it is essential that the village should be properly placed in its regional setting, and should be properly linked with higher governing units.

* Note —Reconstruction of Local Self-Government by Mr Dwark Prasad Mishra—Quarterly Journal of the Local Self-Government Institute, Bombay Vol. VIII, No. 4, 1980

ALL-INDIA ECONOMIC CONFERENCE

Dr. B. V. Narayanaswamy Naidu, General Secretary, Indian Economic Association, writes :—

The Twenty-third Annual Conference will be held at Allahabad under the auspices of the Allahabad University between the 2nd and 5th January, 1940. The following subjects have been selected for discussion at the Conference :—

- A. Scope and Method of Economics;
- B. Recent Developments in Monetary Practice;
- C. Labour Problems and Labour Legislation in India (Industrial and Agricultural).
- D. A Current Topic.

Members, who wish to submit papers to the Conference, should send them to the General Secretary on or before the 15th November, 1939. Those who wish to print the papers at their own cost and submit them to the Conference should send their papers to the General Secretary on or before the 1st December, 1939. Further particulars can be obtained either from Dr. B. V. Narayanaswamy Naidu, Annamalai University, Annamalainagar P.O., or from Prof. S. K. Rudra, Allahabad University, Allahabad.

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PART II

ON THE ULTIMATE NATURE OF COSTS

BY

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What is the ultimate explanation of the money costs or 'expenses' of production of goods? Does the ratio of money costs correspond to the ratio of 'dis-utilities' involved in the production of goods—or does it correspond to the ratio of 'opportunities' surrendered? According to one view the relative money cost of production of goods is the reflection of the relative quantities of 'pain' or 'disutility' involved in their production. According to the other it is the reflection of the relative sacrifices involved in terms of goods themselves—in view of the employment of a given quantity of resources. Suppose that the cost in terms of money of producing one unit of x is twice that of producing one unit of y , so that the ratio of money cost of x and y is 2:1. Are we to say, then, that the ratio of real cost in terms of 'pain' of the two goods is also 2:1,—or merely that the production of one unit of x requires some resources the employment of which involves a sacrifice of 2 units of y ,—in other words,—that the alternatives obtainable from a given amount of resources are one unit of x and two units of y ?

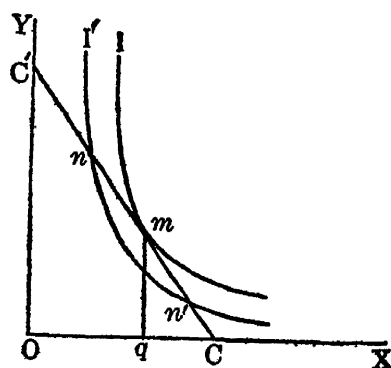
The former is the so-called 'real cost' approach and the latter is the 'opportunity cost' approach.

Now, it may be asked —why seek for a non-monetary explanation of costs at all? The real world being a world of prices and money costs, why not be content with just an 'empirical' account denoting the relation between these two? It is indeed true that the producer takes factor prices in the market as a fact and endeavours to use such methods as reduce the money cost of an article to a minimum. There is also a tendency under competitive conditions of prices of goods to conform to these money costs. And of course all these form interesting studies. Yet they do not tell us enough. An analysis of the ultimate nature of costs contains more profound principles. The significant point in this analysis is that it seeks to indicate the condition of maximum economy in the real sense.

According to the real cost doctrine minimum money cost of production implies minimum real cost; and if prices conform to money costs, it follows that goods are produced at the minimum sacrifice in terms of pain. Perfect competition, therefore, ensures maximum economy. If, on the other hand, the money cost ratio fails to represent the real cost ratio, there arises a need for interference. If the price as well as the money cost ratio of x and y is $2:1$, whereas the real cost ratio is $3:1$, the process of increasing the output of y and reducing the output of x so as to make the price ratio conform to $3:1$, is a process that results in an economy of effort. The equilibrium price ratio, $2:1$, and the output that goes with it are thus uneconomical.

The same fundamental theorem emerges also from the opportunity cost principle, although the elements considered there are more objective in character. Given the quantity of resources and given the alternative possibilities of the employment of those resources, maximum economy requires that the price ratio between goods should be the same as their opportunity cost ratio. If, as in the above example, the opportunity cost ratio of x and y is $2:1$, and the price ratio is $3:1$, increasing economy is effected as resources are transferred from x to y until the price ratio is brought down to $2:1$. Now, under competitive conditions the

price ratio tends to be equal to the money cost ratio. If, therefore, conditions are such that the money cost ratio just reflects the opportunity cost ratio, freedom of enterprise leads to maximum economy,—for, in such circumstances, the correspondence of the price ratio to the money cost ratio does imply its correspondence to the opportunity cost ratio. Taking the simple case of constant returns, if, as in the following diagram, CC' is the Production Opportunity curve and tangent $\angle OC'C$ represents the opportunity cost ratio, showing the alternatives in terms of x and y that can be had with a given amount of resources, the total product stands at a maximum just when this ratio coincides with the consumers' preference ratio or the market rate of exchange.



If the Consumption Indifference curve, I , touches CC' at m , then m is the point of maximum economy,—or in other words, the given quantity of resources yields maximum output when Oq of x and mq of y are produced. Any other output represented by the co-ordinates of, say, n or n' would be less preferred. If, therefore, the money cost ratio to which the price ratio corresponds fails to be equal to the opportunity cost ratio, the resulting output is less than maximum.

Now, if there is only one scarce factor entering into production,—homogeneous labour—either of the above principles may serve our purpose. An hour's work may be taken as involving a definite quantity of pain, and the pain cost of one commodity can very well be compared with

the pain cost of another, and this ratio turns out to be just the same as the opportunity cost ratio :

2 hours' work produces one unit of x

1 hour's work produces one unit of y

The production of one unit of x involves double the pain involved in the production of one unit of y. The pain cost ratio is 2 : 1.

Again,

Given 2 hours' work, the alternatives open are one unit of x and 2 units of y. The production of one unit of x involves a sacrifice of 2 units of y. The opportunity cost ratio is 2 : 1.

This holds good of Adam Smith's imaginary primitive society. Complications arise when production is complex,—when, that is to say, a number of scarce factors come into the picture; for, in that case, the pain involved in different operations cannot be estimated. The psychological discomfort, if any, involved in “abstinence” cannot be compared with that involved in “work;” nor can different kinds of work performed by different labourers be brought under a common standard in terms of pain.

Of course, even in the case of complex production, no damage is done to the real cost principle, so long as the proportion in which different factors are employed in different industries is the same. For, here, again any of the factors can be taken to indicate the cost ratio, and indeed as estimated in terms of an hour's work the pain cost ratio would be the same as the opportunity cost ratio.

2 hours' work and 4 units of capital yield one unit of x.

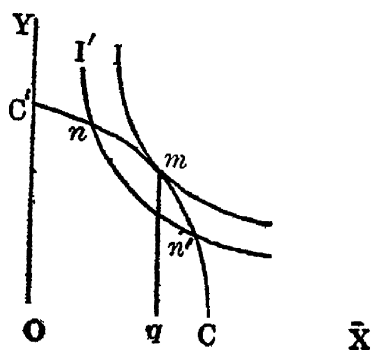
1 hour's work and 2 units of capital yield one unit of y.

The cost ratio in terms of any of the factors is 2 : 1, and there is no cleavage between the real cost principle and the opportunity cost principle.

The real cleavage between the two principles arises when the proportion is not the same. When factors are

employed in unequal proportions in different industries there is no means of discovering the real cost ratio. You cannot compare the real cost of, say, 2 units of labour *plus* 5 units of capital with the real cost of one unit of labour *plus* 2 units of capital except by attaching arbitrary indices of disutility to the factors.

On the other hand, an hour's work and a unit of capital by themselves are perfectly definite concepts and can be related to the products that they are capable of yielding. Starting off with a bundle of resources—whatever its contents might be¹—one can discover the possible alternatives open and can deduce the opportunity cost ratio without any reference to the relative disutility of different factors. The principle is perfectly general, and does explain conditions of simple production as well as complex production of any form. Unequal proportions in the use of factors in different industries merely indicate that some factors are



‘specific.’ Specificity leads to diminishing returns as the product of one good is increased at the expense of the other. This, however, does not cause any trouble. For, it only means that the marginal opportunity cost ratio varies as against that good whose output is increased, and the Production Opportunity curve is concave to the axes. The condition of maximum economy is again equality between the price ratio and the marginal cost ratio. The point, *m*, in the above diagram where the Consumption Indifference curve, *I*, touches the Production Opportunity curve *CC'* (in

¹ The contents, of course, are not to be arbitrarily chosen. They would depend upon the relative scarcity of factors, or, in other words, upon the relative margin productivity.

this case concave), is the most preferred point indicating that the combination, Oq of x and mq of y , is the maximum product yielded by the given bundle of resources. The concavity of the Production Opportunity curve signifies diminishing return which,—translated in terms of the opportunity cost principle—means that as one moves on along the curve producing more of one commodity, the rate of substitution for that commodity in terms of the other—as indicated by the slope of the tangent to the curve—increases. This is nothing but to say that the cost of having a little more of one commodity in terms of the other increases as resources are transferred in one direction. In Marshallian terms—this happens because of a disproportionate use of factors. It is now easy to see how this disproportionate use is the result of the existence of some ‘specific’ factors. As we move along the curve in favour of one commodity, transferable resources are shifted from the other line, but they have to be worked with the given quantity of those factors which are specific to it.

What is the counterpart of all this in money terms? It can be easily seen that in the case of factors that are fully transferable one important condition that needs to be satisfied in order that the money cost ratio should correspond to the opportunity cost ratio is that each should have the same price in different industries. In the more complex case where specificity is allowed, the condition necessary for the correspondence of the two ratios is that in every industry the specific factors should be paid according to their marginal productivity,—or, one might say, according to the ‘rent’ that they yield. As more of x is produced the additional cost of every increment of x gets on increasing in terms of y if there are some factors specific to x , if, that is to say, the necessary resources cannot all be diverted from the y industry. This rise in the cost of x will have its expression in absolute money terms if there is corresponding increase in the price of the factors specific to x , the transferable factors having the same price in both the industries. If, on the other hand, the ‘rent’ of specific factors is kept at a lower level the money cost ratio will be more favourable to x than is warranted by the opportunity cost condition. Equilibri-

um will take place at a position of less than maximum product. This, by the way, is the economic justification for maintaining a market price for specific factors. Even though the remunerations that market conditions offer to specific factors appear as rent,—a surplus, from the point of view of society—in the sense that the employment of the services of their receivers does not involve any sacrifice in terms of an alternative product,—the producers as such must be made to regard them as part of their expenses in order that the actual expense ratio may not diverge from the opportunity cost ratio.

All these conditions, as is well known, are realised under perfect competition. The competition among producers brings it about that prices are proportional to money costs,—prices of factors including specific factors correspond to their marginal productivity and distribution of factors as between products is such that the money cost ratio corresponds to the opportunity cost ratio.

The opportunity cost principle is thus based on a more objective analysis and has nothing to do with the distinction between the human factors and the non-human factors of production,—a distinction which begs the most debatable question of the comparability of disutilities attaching to different factors, —of whether work gives pleasure or involves pain, and so on. The cleavage between the real cost principle and the opportunity cost principle in the theory of production is analogous to the cleavage between the older utility principle and the modern ‘choice’ principle in the theory of consumption and value.

Let us, however, turn to objections. An old objection which was raised by Edgeworth is that while the opportunity cost principle explains market phenomena on the assumption of a given supply of productive resources, it breaks down when the question is one of ascertaining what quantity of resources will be available to the society for productive purposes. The quantity of land is given by nature; but the determination of the available quantity of labour involves a comparison of utility of real income and the disutility of work. The answer to this objection given by Professor Robbins is decisive. Indeed the same solution can be put with

greater advantage in the language of the opportunity doctrine; for the total availability of labour depends upon the labourers' choice between 'real income' and leisure. 'With greater advantage'—because one fundamental point emerges from this principle, namely, that even the total quantity of nature's gifts, land, for example, which is available for the production of real income,—marketable goods, that is to say, cannot be said to be rigidly fixed—depending as it does upon the choice of the holders as between 'economic' and 'non-economic' uses.

A more subtle objection to the principle is that which has been raised recently by Professor Viner,—an objection that has led to the famous recantation of Professor Knight. It is argued that so long as the relevant occupations are equally attractive the principle holds, but that it breaks down when, as generally is the case, different occupations offer unequal attractions for a factor. For in that case the same amount of work, for example, will involve unequal 'costs' in view of differences in 'irksomeness,' even though labour is otherwise homogeneous.²

Now, it is true that the opportunity cost theory starts as a first approximation with the assumption that the factors are indifferent in the matter of choice of occupations. If x and y are products of industries which are equally attractive to our resource-owners the maximum principle as deduced from equality between the price ratio and the opportunity cost ratio holds unambiguously. And of course it is in order to bring into relief this salient point that this first approximation is resorted to. If, however, the y industry is more attractive than the other, there arises yet another question of a preference between 'real income' and 'other advantages;' and there is no knowing how people will react to this. They may work more in the y industry and equalise money incomes or they may accept lower money incomes and enjoy 'other advantages' attaching to the industry.

² Strictly speaking, this applies to all kinds of resources. Even property-owners do take into account differences in 'risk' attaching to different enterprises,

The real cost theorist would resolve this difficulty by taking an hour's work in the y industry as involving less cost than in the x industry, thus arguing that if money wages differ in the two industries that is a reflection of a difference in real costs.

This is all right so far as it goes. But at the same time the problem can be also thrown in terms of the opportunity cost principle. Whereas in the above solution an element is deducted from the cost item,—here the 'other advantages' will have to be added to the income,—being regarded as a joint product of the y industry. And if that is allowed it can be very well seen that whatever may be the preference of the resource-owners—equalisation of the price to the marginal expense ratio does ensure maximum product. When the preference scheme of factors is such that the greater attractiveness is wholly compensated by extra work, and money incomes are equalised, the maximum product runs in terms of the commodities themselves and the principle is unambiguous. Where, however, money incomes are not equalised, the product maximised is in terms of x and y *and* 'other advantages.'

Professor Viner, however, objects to this 'product' terminology which includes such things as 'advantages of occupation.' Referring to Professor Robins' treatment of 'other advantages and disadvantages' attaching to different occupations, Viner says, "By calling the excess of pleasurable-ness of occupation A over occupation B a 'joint product' of A the product terminology is retained while proper account is taken of the significance for prices of choices between *other alternatives than products*."³

What, then, one might ask, would Professor Viner mean by the term 'product?' Does it consist only of material objects? Of course, not. Of all persons Professor Viner could not be considered to be still under the Physiocratic influence. If, on the other hand, it consists, as it does, of all exchangeable things, then it might surely include these 'other advantages.' If I prefer to pay a penny more for an

³ Viner, *Studies in the Theory of International Trade*, p. 525. My italics.

article of the 'same kind' because my shopkeeper has pleasant manners, then this immaterial benefit does enter into the circle of exchange, and there cannot be any harm in calling it a joint product in the same way as wool and mutton are joint products, and a sheep yielding more (or a better kind) of wool sells at a higher price, although it yields the same amount of mutton as the others do.

This, however, is a matter which ought not to create much trouble. It is of little consequence whether in view of differences in the attractiveness of occupations the element of advantage and disadvantage is considered in relation to 'resources' or in relation to 'income.' The difference turns out to be one of form rather than of substance. The same remark applies to that version of the 'real cost' theory where by 'real' is implied resources in *kind* as distinct just from *money*. Indeed it does not matter whether the economic process is viewed as the employment of minimum resources for a given income, or as the achievement of maximum income against given resources. The so-called 'real cost' analysis lends itself more readily to the former view, and the opportunity cost analysis lends itself more readily to the latter view.

A genuine divergence between the two theories arises only when by real cost is meant psychic pain or 'disutility,' capable of being measured and compared. This is the doctrine that comes from Senior, and it is against this that 'Wieser's Law' is a reaction.

ON ELASTICITY OF DEMAND

BY

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In his chapter on Elasticity of Wants Marshall explains in a foot-note: "We may say that the elasticity of demand is one, if a small fall in price will cause an equal proportionate increase in the amount demanded; or as we may say roughly, if a fall of one per cent in price will increase the sales by one per cent." Thus Marshall thinks that so long as P and P' are conceived to be two consecutive points on the demand curve (for, he speaks of a small fall in price), it makes no appreciable difference whether we express the change in price and the consequent change in demand in terms of proportion or in terms of percentage. That the difference tends to be negligible can be shown by a numerical example.

Big Change.

Suppose that the price of a commodity increases from Rs. 10 to Rs. 15. That is, the price increase $1\frac{1}{2}$ times or by 50 p.c. If the elasticity of demand is one, as defined by Marshall above, the consequent change in demand (which is originally, say, 10 units) will be $10 \times \frac{2}{3}$, i.e., $6\frac{2}{3}$ (expressed in terms of proportion) and 5 (when expressed in terms of percentage). The difference in the results here is very great.

Small Change.

But suppose the price increases from Rs. 10 to Rs. 10.5. That is, the price increases $\frac{2}{20}$ times or by 5 p.c. If the elasticity of demand is one, the consequent decrease in demand (which is originally, say, 10 units) will then be $10 \times \frac{2}{20} = 1$ (expressed in terms of proportion) and

95 (expressed in terms of percentage). The difference here is very small.

Marshall thus comes to the conclusion that it is unnecessary to choose between the two, so long as we are concerned with infinitesimal changes in P (price) and the associated change in Q (quantity), although he is at the same time aware that "98 does not bear exactly the same proportion to 100 that 100 does to 102." In defining unit elasticity of demand for small changes, he is, therefore, indifferent between the two definitions given below:

- (1) That elasticity of demand is one, if a change in price by a certain percentage is followed by an opposite change in demand by the same percentage.
- (2) That elasticity of demand is one, if a change in price by a certain proportion is followed by an opposite change in demand by the same proportion.

And yet—be it noted—that when deducing his formula $E_d = -\frac{ydx}{xdy}$, Marshall actually starts with the percentage definition of elasticity of demand (and does not, as he could, give us the alternative formula which can be derived from the other definition).

$$\begin{aligned} \text{For, if } E_d = 1 &= -\frac{ydx}{xdy} \\ \text{then } ydx &= -xdy \\ \text{or } \frac{dx}{x} &= -\frac{dy}{y} \\ \text{or } \frac{dx \cdot 100}{x} &= -\frac{dy \cdot 100}{y} \end{aligned}$$

which shows that he starts with the definition that $E_d = 1$, when the percentage change in price is equal to the percentage change in demand. And he sticks to this formula because even when the changes are expressed in terms of proportion, $-\frac{ydx}{xdy}$ is still equal to 1 when a small

change in price effects an inversely proportional change in demand, because $dx \cdot dy$ is of the second order of infinitesimals.

If, however, Marshall started with the other definition that $E_d = 1$ when demand changes in inverse proportion to the change in price, so that the total expenditure is constant, it would have been found that E_d is given by $-\frac{ydx}{dy(x+dx)}$

$$\text{For, if } E_d = 1 = \frac{ydx}{dy(x+dx)}$$

$$\text{then } ydx + xdy + dy \cdot dx = 0$$

$$\text{or } ydx + xdy + dy \cdot dx = xy$$

$$\text{or } (x+dx)(y+dy) = xy$$

i.e., the outlay is constant, which means that the demand changes in inverse proportion to the change in price. Marshall could have as well stuck to this formula, and shown that it is also valid when changes are expressed in terms of percentages.

For then

$$\frac{dx}{x} = -\frac{dy}{y}$$

$$\text{or } ydx + xdy = 0$$

$$\text{or } ydx + xdy + dx \cdot dy = 0 \quad (\text{as } dx \cdot dy \text{ is of the second order of infinitesimals})$$

$$\text{or } xdy + dy \cdot dx = -ydx$$

$$\text{or } dy(x+dx) = -ydx$$

$$\text{or } -\frac{ydx}{dy(x+dx)} = 1, \text{ so that } E_d = 1.$$

We shall return to this point again.

Dalton in his *Inequalities of Incomes* (3rd impression, pp. 192—97) describes Marshall's formula as inapplicable to what he calls arc elasticity and extends it for finite changes in price and quantity. His formula is $E_d = -\frac{hy}{kx}$, where

a change in P from y to $y + k$ is associated with a change in Q from x to $x + h$, both h and k being finite quantities, one of them —ve. Of this formula it has been said (cf. "A Note on the Elasticities of Demand and Supply," by A. K. Dasgupta, *Indian Journal of Economics*, April 1933): "This (the formula), however, leads us away from the assumption made above (the reference is to Marshall's formula) that $E_d = 1$, when the price per unit multiplied by the quantity demanded at that price is constant." This remark, it appears to me, is a little uncalled for. There is no justification in holding that Marshall's exclusive assumption is that $E_d = 1$ when $P.Q$ is constant. For, as shown above, Marshall, on the contrary, starts with the other assumption that unit elasticity is characterised by equal percentage changes in price and quantity. That is how he arrives at $E_d = - \frac{ydx}{xdy}$ which—only incidentally—also holds good roughly, even when unit elasticity is defined in terms of constant outlay.

As a matter of fact, Dalton's formula is not only an extension of Marshall's formula for finite changes, but it is also based upon the assumption that $E_d = 1$ when percentage changes in P and Q are the same. When changes are infinitesimally small, the Percentage Formula is approximately equal to the Proportion Formula. But in case of finite changes, the two will necessarily diverge, unless, as Dr. Dasgupta himself has pointed out, h and k , though finite, are very small relatively to x and y respectively. In other words, while $dy \cdot dx$ is negligible and can therefore be discarded, the corresponding term $h.k$ is not negligible and cannot be discarded. Otherwise, the two formulae can be shown to be similar. That is, it can be shown that for a constant outlay curve, both the point elasticity and arc elasticity are, mathematically speaking, different from 1.

For, in the case of Dalton's formula, as he himself has shown,

$$- \frac{hy}{kx} = 1 + \frac{h}{x}$$

In the case of Marshall's formula also,
if $xy = (x + dx)(y + dy)$

$$\text{then } -ydx = xdy + dx.dy$$

$$\text{or } -\frac{ydx}{xdy} = 1 + \frac{dx}{x} \text{ (not discarding } dx.dy)$$

It will thus appear that if we start from a common definition of unit elasticity, the formulae for arc elasticity and point elasticity are, strictly speaking, entirely similar. We should not take advantage of the fact that when changes are infinitesimally small, equal percentage changes in price and quantity virtually give rise also to equal total expenditures at the different prices, and thus describe Dalton's formula as different from Marshall's on the ground that it does not give us unit elasticity when the outlay is constant. For, Dalton, in a sense, starts with a totally different assumption. Although he makes $E_d = 1$, when percentage change in price is equal to the percentage change in demand, he cannot associate it with constant outlays, as the total expenditures are not the same—even roughly—when the changes are finite.

Dalton's formula is discarded on yet another ground. It does not satisfy the so-called reversal test. As Dr. Dasgupta says (*ibid*, p. 681), "The relevant data being given the coefficient of elasticity *must* be the same whether we reckon it forward or backward. But the formula employed by Dalton in measuring arc elasticity gives different coefficients." (My italics.)

In the first place, it should be said that Dalton himself is aware of this discrepancy. "It should be also noticed," says he, "that for any demand curve, the arc elasticity for a given arc is different according to which end of the arc is taken as the base, from which elasticity is measured. If the base is (x, y) , E_d is given by $-\frac{hy}{kx}$ while if the base is $(x+h, y+k)$, it is $-\frac{h(y+k)}{k(x+h)}$." But he adds that the difference between the two elasticities will not generally be large.

In the second place, this objection applies equally in the case of point elasticity.

For,

when P changes from y to $y+dy$
and Q changes from x to $x+dx$

E_d is given by $-\frac{ydx}{xdy}$:

when P changes from $y+dy$ to y
and Q changes from $x+dx$ to x

E_d is given by $-\frac{ydx+dx \cdot dy}{xdy+dx \cdot dy}$

It is only when we discard $dy \cdot dx$ as negligible that the reversal test is found to be applicable. It cannot, therefore, be maintained that while Marshall's formula does, Dalton's formula does not, satisfy the reversal test.

The reversal test, as suggested by Dr. Dasgupta, is not very convincing either. The clue is apparently taken from Marshall's statement that "if a fall in price from, say, 16d. to 15d. per lb. of tea would much increase purchase, then a rise in price from 15d. to 16d. would much diminish them. That is, when the demand is elastic for a fall in price, it is also elastic for a rise." Dr. Dasgupta seeks to establish the identity of the co-efficients of elasticity, forward and backward, on the following lines.

Suppose,

when price is 16d. per lb., the demand is for 10 lbs.
of tea

when price is 15d. per lb., the demand is for 12 lbs.
of tea

The price decreases by $\frac{1}{16}$; the demand increases by $\frac{2}{10}$.

The product of the two changes: $\frac{1}{16} \times \frac{2}{10} = \frac{1}{80}$ (A)

Again suppose,

when price is 15d. per lb., the demand is for 12 lbs.
of tea

when price is 16d. per lb., the demand is for 10 lbs.
of tea

The price increases by $\frac{1}{3}$; the demand decreases by $\frac{2}{3}$.

The product of the two changes: $\frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$ (B)

The first product A ($\frac{2}{3}$) is called Elasticity of demand for a fall in price, while the *reciprocal* of the second product B ($\frac{2}{9}$) is called the Elasticity of demand for a rise in price. And it is concluded that, therefore,

E_d for a fall in price = E_d for an equal rise in price.

That is, the reversal test is fully satisfied.

In effect, however, it is merely shown that, changes being stated as ratios of the original magnitudes,

Decrease in price \times Increase in demand =

$$\frac{1}{\text{Increase in price} \times \text{Decrease in demand}}$$

But that is only a statement of the relation that must exist between the four entities under the postulates assumed. Such a relation can be shown to exist for any four magnitudes whatsoever, if likewise related. If 'a' changes to 'b' and consequently 'c' changes to 'd,' and also, if 'b' changes to 'a' and consequently 'd' changes to 'c,' then

$$\frac{bd}{ac} = \frac{1}{\frac{ac}{bd}}$$

The plausibility of the reversal test rests, however, upon a static hypothesis. A demand curve is the expression of a state of facts existing at one time, *viz.*, a set of a hypothetical consumer's value and not a group of successive time phenomena. The important rôle of time is assumed away by representing the demand curve as based upon a perfect knowledge on the part of the consumer about the relative significance of the goods concerned. An obvious conclusion is that the list of demand prices which holds for the forward movement holds for the return movement as well.

Thus the reversal test can have one and unambiguous meaning. The locus of a point P which traces the demand curve is such that if it moves from a position p to a position p', it will again move from p' to p on the return

journey, as soon as the original force (*e.g.*, a change of price) which initiated the first movement is relinquished. But there is no warrant to hold that the co-efficients of elasticity as evidenced by these two numerically opposite events, *must* also be the same, unless a formula is so framed as to establish this so-called identity.¹ Indeed, it is enough if a formula can show that when the elasticity is greater or less than one owing to a given change in the price, it is also greater or less than one for an equal and opposite change in price. A formula, such as this, may lack elegance and symmetry, but it will certainly be less artificial than one made on the lines shown above.

Consider the formula $E_d = - \frac{y dx}{dy (x + dx)}$ which we deduced on the assumption that $E_d = 1$, when the total expenditure remains constant, *not* discarding $dy \cdot dx$ in the process of calculation (see page 3). This formula, if applied to finite changes, will assume the form $-\frac{hy}{k(x+h)}$, while generally it may be expressed as:—

$$E_d = - \frac{Pq}{pQ'}$$

where

P ... old price

Q' ... new demand

p ... difference in old and new prices

q ... difference in old and new demands.

p or q being negative.

¹ Observe that in the statement of Marshall quoted above (p. 6), he does not say anything on the quantitative aspects of the two elasticities,

Let us observe the application of this formula to specific cases:

Case I: $E_d > 1$

Forward		Backward	
Price	Demand	Price	Demand
20	3	10	10
10	10	20	3
$E_d = \frac{20 \times 7}{10 \times 10} = 1\frac{2}{5}$		$E_d = \frac{10 \times 7}{10 \times 3} = 2\frac{1}{3}$	

In both cases $E_d > 1$, but the co-efficients are not identical.

Case II: $E_d < 1$

Forward		Backward.	
Price	Demand	Price	Demand
20	7	10	10
10	10	20	7
$E_d = \frac{20 \times 3}{10 \times 10} = \frac{3}{5}$		$E_d = \frac{10 \times 3}{10 \times 7} = \frac{3}{7}$	

In both cases $E_d < 1$, but the co-efficients are not identical.

Case III: $E_d = 1$

Forward		Backward	
Price	Demand	Price	Demand
20	5	10	10
10	10	20	5
$E_d = \frac{20 \times 5}{10 \times 10} = 1$		$E_d = \frac{10 \times 5}{10 \times 5} = 1$	

In both cases $E_d = 1$, and the co-efficients are identical.

Incidentally, according to this formula, in the example given by Dalton, in which Q decreases from 100 to 90 when P increases from £10 to £11 $\frac{1}{9}$, the elasticity is 1 and not $\frac{9}{10}$.

For,

$$E_d = - \frac{10 \times (-10)}{\frac{10}{9} \times 90} = \frac{100}{100} = 1.$$

The conclusion then is this. The co-efficients of elasticity will never be identical even for equal and opposite changes in price unless the total expenditure is constant. This can also be proved algebraically as shown below.²

The co-efficients of forward-and backward-elasticities will be identical in two other cases also, *viz.*, when the demand curve is a straight line vertical to the x -axis, and when it is a straight line parallel to the x -axis. For, in the former case, $E_d = - \frac{Pq}{pQ} = 0$, as $q = 0$, whether calculated forward or backward. In the other case, $E_d \frac{Pq}{pQ} = \alpha$, as $p = 0$, whether calculated forward or backward.

Price	² Forward Demand	Price	Backward Demand
y	x	$y+k$	$x+h$
$y+k$	$x+h$	y	x

('k' being negative)

Putting $y+k=Y$ and $x+h=X$, we have $y=Y-k$ and $x=X-h$.

Hence,

$$\text{Forward } E_d :- \frac{h(Y-k)}{k(X)} = \frac{hy}{k(x+h)} \text{ ('k' being -ve.)}$$

$$\text{Backward } E_d :- \frac{hY}{k(X-h)} = \frac{h(y+k)}{kx} \text{ ("K" being -ve.)}$$

If the two co-efficients are to be identical,

$$\frac{hy}{k(x+h)} = \frac{h(y+k)}{kx} \text{ or } xy = (x+h)(y+k),$$

i.e., the outlay should be constant.

CONSUMER'S SURPLUS—A REPLY

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In his recent article¹ on 'consumer's surplus' Mr. Mathew Tharakan attempts "to guess what was at the back of Marshall's mind," believing that Marshall has not expressed himself clearly and "to rectify terminological inexactitudes in the writings of the master and to invest them with the dignity of scientific exposition." But Marshall does not appear to need any interpretation or rectification to invest his ideas relating to consumer's surplus with "scientific dignity."

The first criticism² which Mr. Tharakan offers is that Marshall ignores the distinction between value and utility and that he talks of price-surpluses, when he seems to have utility surpluses in mind and ought to talk about utility surpluses. It is also pointed out that the definition of consumer's surplus as the difference between the sum which measures total utility and that which measures exchange value is untenable, for the simple reason that there can be no common unit, real or imaginary, which can measure such unlike things as utility and exchange value.

This criticism is unfounded. Marshall is very clear about the distinction between value and utility. In Chapter II of Book I of his *Principles* he repeatedly points out how we are concerned with utility or "desires, aspirations and other affections of human nature" and how,

¹ *Indian Journal of Economics*, January 1939. This article does not attempt either to criticise or to defend the doctrine of consumer's surplus, but merely examines some of the points raised by Mr. Tharakan (*op. cit.*) and by Mr. Abdul Khadir (*Ibid.*, July 1937).

² *Ibid.*, p. 414.

because these are subjective and not measurable in themselves, "the economist studies mental states rather through their manifestations than in themselves."³ In fact, the whole of Chapter II emphasises the limitations as well as the unavailability of measuring subjective feelings by objective standards. Further, the very title of the chapter⁴ on consumer's surplus is 'value and utility' and the very first sentence refers to the measurement of benefit or utility by price. Thus Marshall does not ignore the distinction between value or price and utility. He regards value or price as merely representing or measuring, however roughly, utility. He remarks that⁵ "the satisfaction which he (the purchaser) gets from its purchase generally exceeds that which he gives up in paying away its price; and he thus derives from the purchase a surplus of satisfaction." No statement could be clearer. In Marshall's analysis of consumer's surplus the comparison is between two satisfactions—one which the buyer gets and the other which he gives away; each of these is, for the reasons stated above, objectively represented by the price, which the purchaser would be willing to pay and by that which he actually pays. It is *not* a comparison between utility, a subjective feeling, and price or exchange-value, an objective thing. It is a comparison of like 'thing,' viz., total utility received and utility given away in a purchase; both are considered through the medium of price or value, i.e., potential price and actual price respectively. There can thus be no comparison of two unlike things.

Mr. Tharakan further writes⁶ that Marshall is "always careful to refer to consumer's surplus in terms of money and not in terms of utilities," and that "he does not say that consumer's surplus is represented by or indicated by 6 sh. or 45 sh." Marshall's critic concludes⁷ that he has fail-

³ *Principles of Economics*, Seventh Edition, p. 15.

⁴ *Ibid.*, Book III, Chapter VI.

⁵ *Op. cit.*, p. 124.

⁶ *Op. cit.*, p. 414.

⁷ *Ibid.*

ed in his attempt "to give the surplus of utilities mathematical exactitude in monetary terms."

This criticism appears to do Marshall great injustice. The second section of Chapter VI of Book III of the *Principles* is full of the "representative" idea. Thus says Marshall,⁸ "His surplus satisfaction is at all events not diminished by buying it but remains *worth at least* 6 sh. to him. This sum (59 sh.) measures their total utility to him and his consumer's surplus is (at least) the excess of the sum over the 14sh. he actually does pay for them. This is the *excess value* of the satisfaction"⁹ But since the purchase transaction is done in the form of prices, consumer's surplus is for the sake of convenience of expression stated in monetary terms. In Marshall's words,¹⁰ "he will obtain a surplus satisfaction worth to him at least 6 sh. or in other words a consumer's surplus of at least 6sh." Price simply indicates utility.

It is highly doubtful if Marshall attempted to give—certainly he did not claim success in this direction—"mathematical exactitude" to the concept. He appears to have been fully aware of its impossibility. The best that he claims is "to give definiteness to our notions"¹¹ obviously meaning to illustrate and classify the general statement in section 1 of Chapter VI of Book III. Again he writes¹² "The first pound was probably worth to him more than 20sh. All that we know is that it is not worth less to him. He probably got some surplus even on that. Again, the second pound was probably worth more than 14sh. to him. All that we know is that it was worth at least 14sh. and not worth 20sh. to him." Surely, this statement cannot come from one who claims "mathematical exactitude." Even in the analysis of the consumer's surplus of the market,¹³

⁸ P. 125.

⁹ P. 127.

¹⁰ P. 125.

¹¹ *Ibid.*

¹² P. 126, footnote.

¹³ P. 128 and ff.

Marshall remarks "This analysis aims only at giving definite expression to familiar notions;" and at the same time clearly recognises the modifying factors such as differences in sensibility, wealth, etc. No doubt he states that allowance for these modifying factors is seldom needed in considerable groups of people and that "it is on account of this fact that the exact measurement of the consumer's surplus in a market has already much theoretical interest, and may become of high practical importance," but adds in the footnote "the task of adding together the total utilities of all commodities, so as to obtain the aggregate of the total utility of all wealth, is beyond the range of any but the most elaborate mathematical formulae. An attempt to treat it by them some years ago convinced the present writer that even if the task be theoretically feasible, the result would be encumbered by so many hypotheses as to be practically useless."¹⁴ Thus, the extent to which Marshall may be regarded as having failed in this direction is only so far as subjective satisfaction cannot be accurately measured in objective forms. But this 'failure' affects the very foundation of Economics.

Mr. Tharakan, however, attempts¹⁵ to give the Marshallian idea "theoretical exactitude" by taking, instead of exchange-value, "something similar in quality to total utility, and at the same time equivalent to, but not identical with, exchange value. This is obtained by multiplying marginal utility with the number of units purchased. The difference between total utility and this sum obtained by multiplying marginal utility by the number of units, may be termed the *marginal surplus of utilities*."

This idea is totally erroneous and is certainly not an improvement on Marshall. For the number of units purchased is objectively and easily measurable, whereas marginal utility as such is, like total utility, a subjective

¹⁴ *Op. cit.*, p. 415.

¹⁵ In Taussig's words "Our list of demand prices is highly conjectural except in the neighbourhood of customary price; and the best estimates we can form of the whole amount of the utility of anything are liable to large error,"

satisfaction and not measurable. How then does Mr. Tharakan propose, firstly, to multiply an unknowable mental state by an objective number of units, and, secondly, to find out marginal and total utilities excepting as represented in price? In order to obtain the "marginal surplus of utilities," we must first know the total utility and deduct from it the marginal utility multiplied by the number of units. How to do it? In the present state of our knowledge, it is impossible. Therefore "the economist does not claim to measure any affection of the mind in itself, or directly;" but indirectly through its effect. "No one can compare and measure accurately against one another even his own mental states at different times; and no one can measure the mental states of another at all except¹⁶ indirectly and conjecturally by their effects." The claims of Economics to the status of a science are its power to appeal to definite external tests, and those tests are made by the least imperfect of the measuring rods, *viz.*, money. "What a person will pay for an article rather than go without it, is the only test by which we can ascertain with any approach to precision how much satisfaction it brings him."¹⁷ The question how far money can measure utility was raised, in connection with consumer's surplus, by Nicholson more than 45 years ago¹⁸ and was answered.¹⁹

Mr. Tharakan carries his attack beyond Marshall. According to him²⁰ the confusion in the Marshallian concept in its existing form is so great that "such an eminent adherent as Professor Taussig in discussing the theory has made it more defective than it is in Marshall's exposition." Taussig is stated to assume that the potential price for each orange is not affected either by further purchases of oranges or by the prices of other goods and services or of substitutes.

¹⁶ Marshall, *Principles*, p. 15.

¹⁷ Taussig, *Principles*, Vol. I, p. 124.

¹⁸ See specially "Measurement of utility by Money," *E.J.*, 1894.

¹⁹ Edgeworth in *Ibid.*

²⁰ *Op. cit.*, pp. 415-16.

Mr. Tharakan writes,²¹ that "there is no justification to assume that the individual would pay the same 5 cents for the marginal unit, *i.e.*, the 5th orange, under the widely differing systems of purchase. There must be much difference between the effective demands of the same person under widely differing economic conditions." He adds that the actual price in the market, *i.e.*, 5 cents, "represents not the demand price of the last unit under the system of successive unit offers at maximum potential prices, but the demand price of a unit many stages prior to the last unit." Marshall is credited with avoiding Taussig's error by using the phrase "other things being equal," meaning "the prices of other commodities remaining the same." "Only on this assumption," concludes Mr. Tharakan,²² "can the Marshallian procedure of calculating the consumer's surplus of a commodity, taken by itself, have any meaning."

This criticism raises three issues. Firstly, to what extent does Taussig say so?; Secondly, does Marshall differ from him and "avoid such a serious error in his exposition;" and thirdly, does the actual price represent the marginal demand price or the demand price "many stages prior to the last unit." Regarding the first question, it may be pointed out that Taussig states the case "in the simplest terms."²³ He refers to his "illustrative case" and observes that the potential prices cannot be known accurately in actual cases. "Statistics of prices, however perfected, throw no light on the highest range that would be paid if supply became very small."²⁴ "The figures which we have given for illustration are useful in making the conceptions clear but are misleading in that they imply accuracy of measurement."²⁵ These words of Taussig answer Mr. Tharakan's point. It is, however, true that Taussig states, what the equilibrium theory of value states, that the demand price of

²¹ *Ibid.*, p. 415.

²² *Ibid.*, p. 416.

²³ *Principles of Economics*, Vol. I, p. 132.

²⁴ *Ibid.*

²⁵ *Ibid.*

the marginal, and not that of the intra-marginal unit is one of the price-determining factors.

The second question is, does Marshall differ from Taussig? What the former implies by "other things being equal" will be considered later. It is now sufficient to note that Marshall's equilibrium analysis is founded on the idea that the marginal demand price is the upper blade of the pair of scissors that determines value. The third issue needs no elaboration, for, in Marshall's words,²⁶ "we might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production."

This criticism may be regarded as really against the drawing of the potential price or demand curve. It was levelled against Marshall by Nicholson,²⁷ Cannan²⁸ and Miller²⁹ among others. It emphasises two ideas. Firstly, the potential utility, and, therefore, the price a person would pay under conditions of absolute scarcity and privation and of the absence of substitutes, is different from the actual utility derived in the ordinary environment where we find plenty of lbs. of tea and alternative drinks, etc. This idea has led another critic³⁰ to observe that the utility curve is open at the top, *i.e.*, does not meet AY, while the demand curve representing the potential demand price is not, *i.e.*, meets AY. Secondly, the one-at-a-time method of calculating utility and demand prices is faulty. Thus DD³⁰ must be redrawn in view of our knowledge of other prices, etc.

There does not appear to be much substance in these criticisms.³¹ For, Marshall fully recognises that utility under conditions of privation is different from actual utility

²⁶ *Principles*, p. 348.

²⁷ *Principles of Political Economy*, Vol. I.

²⁸ *Economica*, 1924.

²⁹ *Quarterly Journal of Economics*, 1927.

³⁰ *Indian Journal of Economics*, July 1937.

³¹ I am not considering in this article the criticism levelled against Marshall by Cannan, Miller and others. I hope to take them up separately.

yielded and concerns himself with the latter. His explanation of conjuncture,³² his reference to the London market, and his example of the prices of tea indicate that the total utility and the potential prices of the different lbs. of tea refer to a buyer in an ordinary market. Further, Marshall is fully aware of the second point in the criticism and answers it in the footnote on page 126 of his *Principles*. In his own words,³³ the reaction of the additional purchase "upon the utility of the purchases which he had previously decided to make has already been allowed for in making out the schedule and must not be counted a second time," or "the desire for anything is much dependent upon the difficulty of getting substitutes for it."³⁴

Mr. Tharakan next defends Marshall against the criticism by Nicholson, Hobson and Davenport that it is of little avail to say that a man with only a 1000 income to spend can easily emerge with a 2000 surplus from the spending of it."³⁵ Mr. Tharakan writes "How could a man under any circumstance pay anything more than his total resources? Marshall's explanation, though suggestive enough, does not fully clarify the issue. The criticism is based on a false assumption . . . But there is no such thing as a consumer's surplus for all commodities taken together. It is simply a contradiction in terms. In conceiving of the consumer's surplus for any one commodity, Marshall assumes as a necessary condition that "other things can remain equal." The supposition and calculation of the consumer's surplus for any one commodity, therefore, automatically veto the supposition and calculation of the consumer's surplus for any other commodity or commodities."

This argument is surprising. It means: (1) That a person cannot get more satisfaction than his resources, *i.e.*, he can get no consumer's surplus. This is made clear by

³² *Op. cit*, p. 125, footnote.

³³ P. 126.

³⁴ P. 133, footnote.

³⁵ Davenport, *Economics of Alfred Marshall*, p. 105.

the statement that "there is no such thing as consumer's surplus for all commodities taken together."³⁶ Since we do not spend all our resources on one commodity only but buy different goods, it follows that there can be no consumer's surplus. (2) That this is Marshall's view which, however, he does not fully classify.

Both contentions are unfounded. First, let us consider the latter, *viz.*, Marshall's view. His idea is clear from his answer to Nicholson. "There might be use in comparing life in Central Africa with life in England, in saying that though the things which money will buy in Central Africa may on the average be as cheap there as here, yet there are so many things which cannot be bought there at all, that a person with a thousand a year there is not so well off as a person with three or four hundred a year here." This means that the advantages or consumer's surplus got by spending £100 in England is greater than that got in Central Africa and since a person neither in England nor in Africa spends all the £100 on one commodity, only it follows that the advantages from the expenditure on all commodities together are compared.

Mr. Tharakan probably has in mind another statement of Marshall's³⁷ "It will be noted, however, that the demand prices of each commodity, on which our estimate of its total utility and consumer's surplus are based, assume that *other things remain equal*, while its price rises to scarcity value: and where the total utilities of two commodities *which contribute to the same purpose* are calculated on this plan, we cannot say that the total utility of the two together is equal to the sum of the total utilities of each separately." In a long footnote Marshall adds³⁸ "But the task of adding together the total utilities of all commodities, so as to obtain the aggregate of the total utility of all wealth is beyond the range of any but the most elaborate formulae." Such an attempt even if theoretically feasible is practically useless.

³⁶ *I. J. E.*, 1939, p. 417.

³⁷ P. 131.

³⁸ *Ibid.*, footnote. Also 132 footnote.

These passages also do not support Mr. Tharakan's thesis. For, they are made in relation to the measurement of the consumer's surplus not of an individual but of a market. Moreover, the phrase *other things being equal* does not mean that there is no consumer's surplus from other commodities but merely means that, in getting the demand prices of one commodity, we assume that there is no change in the supply of and demand for others, i.e., Marshall has stated that the total utility of a commodity is at least equal to the *demand* price which is influenced by the environment.³⁹ "The character of the demand schedule for any commodity depends in a great measure on whether the prices of its rivals all taken to be fixed or to alter with it." Thus the increase or decrease in number or quantity of the substitutes, changes in the quantity and prices of other commodities and services consumed, changes in wants due to fashion, etc., and changes of a similar type will necessarily react upon the demand price and also the actual price in the market and therefore the consumer's surplus of an article. This state of flux which characterises the real world will hinder the economic analysis. Therefore Marshall assumes that "other things remain equal," so that he might analyse the concept. This is his familiar statical method introduced in his study of the theory of value as less unreal than the familiar stationary state.⁴⁰ In Marshall's words⁴¹ "The study of some group of tendencies is isolated by the assumption *other things being equal*; the existence of other tendencies is not denied, but their disturbing effect is neglected for a time. The more the issue is thus narrowed, the more exactly can it be handled; but also less closely does it correspond to real life." The phrase 'other things being equal' does not, therefore, veto the supposition and calculation of the consumer's surplus of any other commodity or commodities. When Marshall writes that⁴² it is obvious that the consumer's surpluses derived from some commodities are much greater

³⁹ *Op. cit.*, pp. 100, 105 etc.

⁴⁰ *Ibid.*, p. 366 and ff.

⁴¹ *Ibid.*, p. 366.

⁴² *Op. cit.*, p. 418.

than from others and that good instances are matches, salt, postage stamps, and penny newspapers, he certainly does not imply that the consumer can get the surplus from only one commodity and not from the others even though he buys them. It means that he gets the surpluses from all of them and the total of all these surpluses is the extra benefit he gets from his conjuncture. It is just because of this that a person with a thousand pounds a year in Central Africa is not so well off as a person with three or four hundred a year in *England*.

In connection with this concept, Mr. Tharakan enunciates⁴² the "doctrine of dynamic satisfaction." He writes that the psychic surplus of satisfaction has very little in common with consumer's surplus. There are three prices for any commodity, *viz.*, the *actual price* paid, the *potential price* or that which a person is prepared to pay, and the *just and proper price* which is the correct price. The difference between the potential and the actual prices is the measure of consumer's surplus, whereas, according to Mr. Tharakan, the difference between the just and the actual prices is the measure of the psychic surplus. Sometimes circumstances compel a consumer to be prepared to pay more than what he regards as a just price and, therefore, the potential price cannot be taken as the standard of measuring the benefit a person gets.

This concept of psychic surplus is not only unnecessary but positively misleading. It is doubtful if there is anything like a just and proper price, for every consumer would regard no price as the just one. Further, all that we are concerned with is that, at the time of purchasing an article, a person is prepared to pay a certain price determined by his resources and the utility which he feels at the moment the commodity is capable of yielding, and that he actually pays a lower price, whether these prices are just or not.

Another recent critic of Marshall has suggested⁴³ a new definition of consumer's surplus as "the difference between the sum which measures the highest demand value of a stock

⁴³ *I. J. E.*, July 1937.

of a commodity and the sum which measures its total exchange value."

The term 'highest demand value' is misleading. It probably indicates the potential demand price. Why have the term "highest?" Does it refer to the highest price which any of the consumers is willing to pay? Or does it mean the total demand price, *i.e.*, the total of the demand prices for the various units? Again the phrase "the sum which measures" is unnecessary since demand value and exchange value are themselves sums. The 'highest demand value,' according to the critic, need not represent total utility. Since utility is unknowable but demand price is, and since utility is unilaterally determined whereas demand price is affected both by utility and by resources, or, as the critics say, the utility curve is open and the demand curve is closed at the top, it is better to compare demand and actual values.

This new definition indicates a misunderstanding of the concept of consumer's surplus. For the surplus is essentially a utility surplus and not a price-surplus, and this point has been already discussed; whereas the new definition regards it as price-surplus. A surplus is necessarily positive and we get a positive surplus of benefit when a thing that we try is more useful to us than the thing that we give; but according to the new idea, there is no positive benefit.

THE ROAD-RAIL PROBLEM IN INDIA

BY

J. C. SINHA.

In these days of national economic planning, a proper adjustment of road and railway facilities to public requirements which is the essence of the road-rail problem, has assumed a very great importance in our country. Contrary to what is popularly believed, the passing of the Motor Vehicles Act (Act IV of 1939)¹ which received the assent of the Governor General only on the 16th of February last, has not solved this problem. There is a possibility, however, that in the long run the Act may offer a partial solution. For, with the added duties and responsibilities devolving upon motor transport under the new Act, private owners, acting singly, will be gradually pushed to the wall. It is likely that they will have to combine themselves into a few groups, even if a single syndicate is not practicable. Such combination will take the edge off the present keen competition, and will therefore pave the way for better co-ordination. But as Keynes has so aptly said, in the long run we shall all be dead. Our concern is mainly with the short period.

Problem not peculiar to India.

In opening the Road-Rail Conference at Simla in April, 1933, Lord Willingdon, then the Viceroy of this country, aptly described the problem as "one of the growing pains of civilisation." Like the invention of the steam-engine at the beginning of the nineteenth century, the advent of the internal combustion engine at the beginning of the twentieth, has had far-reaching social and economic consequences. Motor transport is essentially a product of the present century, just as railways were the creations of the

¹ This Act, with the exception of Chapter VIII, will come into force on the 1st of July, 1939.

nineteenth. Growing competition between railway and road transport is being felt today in almost every modern country. The only important exception is Soviet Russia where competition between road and railway services is practically non-existent. In some countries, particularly in Germany and the U.S.A., air transport has already appeared as another rival in the field. A national co-ordination of different forms of transport has thus become a world-wide movement today. Practically every country in the world which has railway lines, is facing this problem.

Development of road transport in India.

Fortunately for the Indian railways, air transport is still in its stage of infancy in this country. Road transport has not also developed in India to the same extent as in the West. The number of motor vehicles in India is quite small in relation to the size and population of the country. The total number of motor vehicles running in British India on the 31st March, 1937, was 171,463 only. After a year, i.e. on the 31st March, 1938, the number dropped to 146,429.² In Great Britain, on the other hand, the number just exceeded 2 millions in 1932. At the end of November, 1937, the number rose to 2,720,491. In the U.S.A., that land of motor cars, the number of motor vehicles, excluding motor cycles, for which figures are not available in the *Statistical Abstract of the U.S.A.*, exceeded 28 millions in 1936.

This slow growth of motor transport in India may be partly ascribed to the poverty of the great bulk of our people, for whom the motor car is a luxury but it is mainly due to the paucity of roads, particularly of metalled roads and the unsatisfactory condition in which such roads are generally maintained. But from the point of view of national interest, good road transport is badly needed in India. As the Royal Commission on Agriculture rightly observe "Transportation is an integral part of marketing and

² *Statistical Abstract for British India* (from 1927-28 to 1936-37) (Fifteenth Issue), p. 603.

modern commercial development tends everywhere to enhance the value and importance of good communication.” But the only important step taken in recent years by the Government of India for the development of Indian roads is the creation of a Central Road Fund in 1929, as a result of the recommendations of the Jayakar Committee. Out of the total revenue of this fund obtained from additional tax on petrol, only Rs. 4 crores were available for distribution among the Indian provinces and States during the first five years. It is no wonder therefore that our road development is still quite inadequate. According to the latest annual issue of our *Statistical Abstract*, the total length of metalled roads in British India in 1936-37, maintained by public authorities, was 82,299 miles and unmetalled roads 231,882 miles.³

State of motor competition with Indian railways.

It is but natural that competition from road transport has not yet become very acute in India. But nearly one-half of the total mileage of railways in British India has metalled roads parallel to and within 10 miles of them and most of the roads were there before the advent of the railway. The railway authorities apprehend that competition from road transport is likely to become keener in future.

The class of Indian railways which has been most severely hit up to this time by motor competition is light railways.⁴ It is doubtful whether a light railway, limited as it is, to a single line, with comparatively slow and infrequent trains, can ever hope to compete with a speedy bus service running along a parallel road.

Short distance passenger traffic of metre and broad-gauge railways has also been affected by motor competition. While the range of motor transport for the carriage of passengers is usually short, it is not always so. For instance, railway passenger traffic between Bombay and Poona, a

³ *Statistical Abstract for British India* (15th Issue), p. 604.

⁴ *Report on the Present State of Road and Rail Competition* by Mitchell and Kirkness (General Report), p. 15.

distance of 113 miles, between Kolhapur and Poona, a distance of 135 miles, between Madras and Vellore, a distance of 82 miles, between Nagpur and Amraoti, a distance of 96 miles, and between Benares and Allahabad, a distance of 82 miles, has been somewhat affected by motor competition. Messrs. Mitchell and Kirkness estimate in their Report, published early in 1933, that the annual loss of Indian railways due to diversion of passenger traffic to motor transport is something like Rs. 190 lakhs per annum or slightly under 2 per cent of the railway earnings of a normal year.

The Wedgwood Committee,⁵ however, estimate the annual loss of railway traffic to something like Rs. 4½ crores. This total was made up of Rs. 3¾ crores in respect of passenger traffic and Rs. ¾ crore in respect of goods traffic. Thus the carriage of merchandise by motor transport has not yet developed to any great extent. The North-Western Railway in the Punjab, however, reports the conveyance of vegetables and other perishables by motor transport for considerable distances. An instance of this was given by Sir Jogendra Singh in the Road-Rail Conference at Simla in 1933. He said that fruits from Peshawar were being carried as far as Delhi by motor lorries. At present fruits go up to Agra by road transport for distribution in the neighbouring Indian States. In the case of perishable products like fruits, the diversion of traffic to faster road transport is quite natural but even in the case of less perishable goods, road competition is being increasingly felt. The main reason is the undue delay in transport by goods trains.

As pointed out in the chapters on North-Western Frontier in the Mitchell-Kirkness Report, it takes 3 days by goods trains for the despatch of goods from Peshawar to Kohat Cantonment with numerous waitings on the way but the time taken by a motor lorry in despatch is only 2 hours. This may be quite exceptional but even in the case of a progressive railway like the E.I.R. the time taken in the despatch of merchandise by goods trains is often too long.

⁵ *The Indian Railway Enquiry Committee*, 1936-37, of which Sir Ralph Wedgwood was the Chairman.

To quote the Mitchell-Kirkness Report again, it sometimes takes 3 days before a consignment booked at Howrah is available at Burdwan, a distance of only 67 miles. The quicker transport by lorry mainly explains why a certain amount of motor competition for the carriage of merchandise is being felt both by the E.I.R. and the E.B.R. in Bengal where the roads are generally so unsatisfactory.

In the chapters on Bengal in the Mitchell-Kirkness Report, it is admitted that the lorry rate is usually higher than the railway rate but merchants prefer the lorry because "it provides quicker transit, door-to-door service, and it is more attractive (because) the lorries permit the owner of goods to travel free of charge and thus owners avoid all possibility of thefts." There is no doubt that the pilfering of goods by the subordinate staff in railways, especially in cases where the goods are accepted for despatch "at the owner's risk" is partly responsible for the diversion of traffic to motor transport.

The argument that while railways have to provide for their permanent way, motor transport uses one supplied from public revenues, is not a strong one. As Sir Frank Noyce himself pointed out at the Road-Rail Conference, motor transport is at present paying more than half the total current expenditure on roads, although it is not the sole user of public highways.⁶

It is of course quite true that road services are at present far less controlled than railways as regards fitness of vehicles, loading and speed limits, hours of duty and physical and technical fitness of the driver. It is an undisputed fact that overcrowding of buses and overloading of lorries are the rule rather than the exception.

Motor Vehicles Act of 1939.

But most of the defects of motor transport against which the railways are loud in their complaints, are likely to be remedied as soon as the present Motor Vehicles Act

⁶ *Proceedings of the Road-Rail Conference at Simla* (1933), pp. 9-10.

comes in force. Few measures have been passed in recent years by the Indian Legislature after such elaborate enquiries by so many committees. The Motor Vehicles Act of 1939 incorporates most of the recommendations of the Mitchell-Kirkness Report, of the Road-Rail Conference of 1933, of Motor Vehicles Insurance Committee and of the Wedgwood Committee. The object of the Act is to make competition between railway and motor transport more even and fair and to ensure satisfactory working and safety conditions in the latter. It is true that chapter VIII of the Act dealing with third party risks,⁷ shall not have effect until the 1st of July, 1943, but in spite of this, the Act removes most of the legitimate grievances of the railways and of the public against motor transport. But this Act alone can hardly be expected to bring about a proper adjustment of different forms of transport services to the actual needs of the country. If the Act is honestly administered so as not to retard the development of motor transport, it is quite likely that road competition with railways would increase in the near future. This is a position which railways cannot face with equanimity.

Case for special protection of railways.

Should railways have any special protection against further motor competition? The case for such protection has been summed up as follows in the Mitchell-Kirkness Report:—"In view of the immense amount of public capital⁸ invested in Indian railways and of the paramount necessity for cheap railway rates for the carriage of agricultural staples and heavy traffic, it is not ultimately in the interest of the community either that railways should be damaged as a property by extensive competition or that, in

⁷ For example, in a contract between an insurance company and the owner of a bus, the insurance granted by the insurance company to the owner of the bus as to the damage claimed against the bus-owner by a passenger, would be third party insurance.

⁸ Sir Frank Noyce estimates it at Rs. 800 crores (*Proceedings of the Road-Rail Conference*, p. 11).

order to pay their way, they should be forced to raise their rates on other traffic."

This argument is far from conclusive. It is true that some eight hundred crores of the taxpayers' money has been invested in railways and therefore a rapid change from rail to road would be a serious financial disaster, but unless it is proved that railways will for all times to come and for all purposes prove to be the most economical and the most suitable form of transport, is it desirable that the close preserve of railways should be maintained for ever, simply because so much state money has been invested in them? This, as Prof. Lionel Robbins rightly observes, would be "the very negation of progress. For progress necessarily involves the destruction of existing capital values."⁹

If the loss to the community due to the closing down of other cheaper and more effective forms of transport is greater than the loss due to the destruction of State property in railways, other forms of transport should be gradually substituted for railways. The State should in this case be prepared to write off the huge capital invested in railways. It is quite true that such a calculation of the profit and loss due to the substitution of a new form of transport for the existing ones, is far from easy but the above argument shows that there is no case for the permanent protection of railways.

But is there any case for their temporary protection? Yes, so far as it is necessary to prevent a rapid change from rail to road, bringing chaos in transport service. Let us now examine the other argument, *viz.*, that unless the railways are given such special protection, they will be compelled to raise their rates on heavy and bulky goods.

Economics of Road and Rail Competition.

To understand the implications of this latter argument, it is necessary to have some idea of the economics of road and rail competition. The difference between the methods of charging lies at the root of the problem of road competi-

⁹ Robbins, *Economic Planning and International Order*, p. 151.

tion with railways. The railways have so far been monopolies. They charge according to the principle that valuable goods can stand a higher proportionate charge than comparatively cheap and bulky commodities. As a matter of policy, the overhead charges of railways are not fully placed on the latter class of goods but are borne to a disproportionate extent by the lighter and more valuable commodities. The road transport agency can, on the other hand, base its charges on the cost of service. It finds it easy to quote competitive rates for those particular classes of goods by themselves, since it has no obligation like the railway to carry low-rated heavy goods. The railways thus find those kinds of traffic which contribute most to their overhead charges, "the cream of the traffic" as Sir Frank Noyce calls them, depleted by road competition. Railways contend that if this competition is allowed to go on uninterrupted, they would have no alternative left but to charge more on heavy and cheap goods. The result will be that the present location of industries and localisation of particular crops in particular areas will be considerably disturbed. There is thus a case for measures to be taken by railways with a view to meet increasing road competition in the near future.

Measures for meeting road competition.

Various measures have been discussed both in the Mitchell-Kirkness Report and in the Report of the Wedgwood Committee for meeting road competition. The more important of them are noted below:—

- (a) One such measure is the zoning of motor traffic. The object is to confine the motor traffic within a limited area. As pointed out in the Mitchell-Kirkness Report, the Agent of the E.I.R. was not hopeful about the efficacy of this measure. The usual range of the motor bus was 50 miles which was also the range of 80 per cent of the intermediate and third class passenger traffic on the East Indian Railway. The question whether zoning will effectively reduce bus competition, will

obviously depend on the limit placed on the zone. It is difficult to lay down any specific distance as the limit because the extent of competition may not be the same all over the country. Too narrow a limit will mean restriction of motor transport which may not be in the interest of the public but too wide a limit will make zoning quite ineffective.

- (b) The reduction of rates and fares in railways is frequently suggested as an effective measure for meeting road competition. But unless there is much unused capacity available in Indian railways, the problem is whether the cost of operating extra trains to carry additional passengers or goods resulting from cheaper fares and rates would be *less* than additional gross earnings. His Excellency the Viceroy said in his speech before the Associated Chambers of Commerce in Calcutta on the 21st December, 1936, "Railways (in India) are always prepared to reduce rates if by so doing there is a reasonable chance of covering the cost of reduction. But it must not be forgotten that a reduction of, say, 25 per cent in rates requires an increase of 33 per cent in traffic merely to obtain the same gross earnings, and about 50 per cent increase to get the same net earnings." A reduction of charges, as the Wedgwood Committee rightly point out, should be the last resort and not the first and should be adopted when all other possibilities have failed. It may also be noted, as pointed out already, that the bus and lorry charges on competitive routes are in some cases actually higher than railway rates and fares yet the public use road transport because the latter presumably provides for superior facilities.

- (c) Would the railways find their salvation in improved passenger and goods traffic facilities? First, let us consider the question of improved passenger traffic facilities. It is well known that Indian passenger trains are relatively slow but the past experience of Indian railways regarding the acceleration of long distance passenger trains is not very hopeful. The Wedgwood Committee doubt whether "special steps taken to expedite long distance express trains would prove a source of additional revenue or count for much in competition with road transport." Improved speed of passenger services for medium distances and in branch lines, is likely to produce more encouraging results. The intensification of short distance service between important towns and the provision of larger amenities for intermediate and third class passengers who provide about 92 per cent of the passenger revenue of Indian railways, may also be recommended for meeting road competition.

Various suggestions have been made by the Wedgwood Committee for improving the facilities of goods traffic by railways, e.g., the acceleration of goods trains without reducing the load, reduction in transit time, lessening of clerical formalities, the modification of railway risk note, collection and door-to-door delivery, registered transit, the use of containers and of refrigerator trucks. A few of these suggestions have already been given effect to by the railway authorities in India. The adoption of all these measures would go a long way in strengthening the position of railways with respect to road competition.

- (d) Another suggestion is that railways should participate in road transport. The legal

powers of Indian railways with regard to this question closely follow the legal practice in England. At an early stage in the history of English railways, it was recognised that "it was appropriate to the railway companies that they should bring the goods to the point where the railway journey begins, and that they should on the completion of the journey distribute what they had carried by rail to the various consignees on the road."¹⁰ Collection and delivery services by English railway companies were definitely recognised by the Regulation of Railways Act, 1873. Apart from such service of collection and delivery, many of the old railway companies in England had from time to time acquired limited powers of conveying passengers by road vehicles. Similar powers of road service were granted to the Guaranteed Railway Companies with British domicile, working in India but which had not yet come under State ownership, by the Indian Guaranteed Railways Act (42 & 43 Vic Cap 41), passed by the British Parliament in 1879. Section 4(c) of the Act empowered such railway companies to run road services for goods and passengers "carried or to be carried on their railway." Railway companies domiciled in India were given practically the same powers by Sec. 51(e) of the Indian Railways Act, 1890. Railways in England, as has been said already, also possessed the same powers. In 1928 the four great railway companies¹¹ in England

¹⁰ Disney, *The Law of Carriage by Railway* (Eighth Edition by H. M. Paul, London, 1929), p. 270.

¹¹ They are (a) the Southern Railway, (b) the London, Midland & Scottish Railway, (c) the Great Western, and (d) the London and North-Eastern Railway.

were granted by the British Parliament "a general power to act as a carrier by road, subject to certain statutory restrictions." In 1933, the Indian Legislature by Act XIX of that year, gave similar power to railway companies with Indian domicile. So far as State-owned railways in India are concerned, there cannot be any legal bar to their running even parallel road services. Thus the main railways in India by reason of their State ownership and most of the smaller railways by virtue of the Act of 1933, are free to run road services. The only railways in India and their number is small, which have no such power now, are railway companies with English domicile which have not yet been acquired by the State.¹²

The Wedgwood Committee recommend that all railways in British India should "have full powers to run road services for the conveyance of passengers and freight traffic subject to the same licensing and operating conditions as apply to every other person providing road services for hire." But the question is—Will the railways find their financial salvation by general entry into road transport where competition is already cut-throat? The answer must be in the negative, at least so far as the immediate future is concerned. But the experience of South African Railways has been that such participation in road transport paves the way for successful road-rail co-ordination. But the real solution of our road-rail problem will lie not in such isolated measures but in a rational transport policy.

¹² A Federal Railway Authority will be created by the Government of India Act, 1935, when Part VIII of that Act will come into operation. It seems that this authority, though controlling the small class of railways which have not the advantage either of State ownership or of the new Act of 1933, will not have any larger power in respect of these railways. For them parliamentary legislation will be necessary if they are to have wider powers for participating in road transport.

The Real Solution.

What is then the real solution? It has already been said that the competition between rail and road is a clash between two economic principles—(1) the principle of charging what the traffic would bear or the value of service principle and (2) the cost of service principle. It would be foolish to suggest that the development of road transport should be stopped in the interest of railways. But it should also be recognised that railways are likely to remain for many years to come, the most economical mode of transport for many purposes, *e.g.*, for long distance traffic and for the transport of cheap and bulky goods. The writer of the article on “The Motor Tortoise and the Railway Hare” in the Jubilee Number of the Capital (November 3, 1938) rightly observes “in an industrial age, time is money; why, then should a man who could travel from Bombay to Poona by road under three hours be compelled to travel by train, which cannot cover the distance in less than $4\frac{1}{2}$ hours? On the other hand, the business man who wishes to travel from Calcutta to Bombay is never likely to make the journey by car.” What is therefore required is that railways should be supplemented by other modes of transport in order to meet modern requirements.

The Four Alternatives.

A Committee of Experts in their preliminary report to the International Chamber of Commerce in October, 1933, discussed the following solutions of the road-rail problem, without any specific reference to a particular country:—

- (a) A policy of *laissez faire* which involves unrestricted competition between rail and road transport.
- (b) A complete monopoly of both forms of transport under a single organization, *e.g.*, in Soviet Russia where all forms of land transport are operated by the Government.

- (c) Two competitive monopolies, one including all motor transport and the other all rail transport.
- (d) A system of co-ordinated competition between road and rail within the limits of their present organization.

Which of them, if any, is applicable to India? Firstly, a regime of unfettered competition would not be in the interest either of the railways or of road transport or of the public. Under such competition, each transport agency might succeed in preventing the other from earning a normal return on its capital. The effect of such competition in the short period would be a fall in the price of transport. But this cheapness would be secured at the expense of efficiency. It is true that free competition might ultimately lead to a modification of railway rate structure on the basis of cost of service which finds the approval of economists like Prof. Pigou. But this would mean increased freight on cheap and bulky goods like coal and other minerals and agricultural produce which would seriously disturb the present localisation of industries in the country and even the specialisation in the production of particular crops in particular areas.

The second alternative would of course enable the continuation of the rate policy of charging what the traffic would bear but this solution is not free from difficulties. Most of the railways in India belong to the central government while motor transport belongs to private individuals and companies subject to control by provincial governments and also by the Indian States. If there is to be a monopoly of rail and road transport in India, it should be a monopoly of the central government. There are serious constitutional difficulties in forming such a monopoly. Moreover the management of such a monopoly is likely to be unwieldy.

The Wedgwood Committee found that the existing administration of railways in India was quite unwieldy. A combined monopoly of rail and road transport would be far too big. There is also a danger that the incentive to reduce tariff and to improve transport facilities to the

public would become weaker under such a monopolistic organisation.

If road transport was made a monopoly independent of the railway which itself would be converted into another monopoly, most of the difficulties of the second alternative would still remain. In this case there "would be a period of intense competition between the two monopolies, followed by agreements stabilizing tariffs and conditions of working on the basis of the competitive power of the undertakings." There is likely to be a division of functions or division of territory between the railway and road monopolies, in order to avoid destructive competition.

Under this system also, as under the second alternative, there would still remain one point for decision. There are two kinds of road transport—(a) "haulers" carrying other people's goods for profit; (b) "ancillary" services whose vehicles carry goods belonging to the owners of the vehicles. Should the monopoly of road transport be complete, *i.e.*, should it include the control of ancillary services also or should ancillary services be allowed to operate independently? This question is very material, because it would affect the future rate structure of our national transport system. If ancillary transport is to be left free and it is difficult to deny the private trader the right to carry his goods in his own vehicles, then both railways and the public road transport undertakings must be left free to adapt their tariffs to non-monopoly conditions. If, on the other hand, ancillary service is brought under the control of the road transport monopoly, it should be possible to maintain the present rate structure. But in this case, there is the danger that the monopoly will not pay any serious attention to technical improvements and will have little incentive to meet the needs of transport in the cheapest and the most efficient way.

By a process of elimination, we thus arrive at the fourth alternative, *viz.*, a system of co-ordinated competition between road and rail within the limits of their present organization. What is 'co-ordination?' This is a much abused word and has been used in different senses on different occasions. When the railway authorities in India talk of road-rail co-ordination, they imply 'elimination' of road competition

or what they call "wasteful competition." But what is the criterion for deciding such 'wastefulness?' As the Hon'ble Mr. Laine, Member in-charge, Public Works Department, Assam, said before the Road-Rail Conference in April, 1933 "Obviously competition cannot *a priori* be classed as wasteful merely because it happens to compete with existing railway facilities."¹³

In a recent Cambridge Economic Handbook, the term 'co-ordination' has been defined as "a relation between two or more transport agencies. It may apply between similar agencies, as between two railways; or between dissimilar agencies as between a railway and a bus company. Its aims are to provide the consumer with a service at minimum cost through the elimination of technically inefficient methods and to ensure that services which are jointly demanded, or complementary to each other, are supplied in harmony."¹⁴ Thus, if co-ordination is to achieve its purposes, transport should be carried on by rail or road or both in such a manner that the cost for every passenger and for every maund of goods is the least possible, with due regard to the efficiency of the service. To translate this ideal into practice under a system of regulated competition as far as possible, is the real solution of our road-rail problem.

Suggestions for a policy of co-ordinated competition.

The following suggestions are made for giving effect to such a policy of co-ordinated competition:—

- (1) Water transport should be developed for the carriage of cheap and bulky goods as far as possible. It is a pity that in this magnificent land of rivers, water transport has so far been neglected. There is little doubt that the development of river traffic will enable our railways to avoid heavy and bulky goods other than perishables which can bear only

¹³ *Proceedings of the Road-Rail Conference at Simla in 1933*, p. 27.

¹⁴ Bonavia, *The Economics of Transport*, pp. 175-176,

very low rates and thus set the railways free for more remunerative traffic. It is true that this will cut into the present earnings of the railways to some extent but it is equally true that if water transport is improved, small country boats will be able to carry the cargo right up to Calcutta or to any big inland trade centre. In other words, these small rivers will serve the same purpose as "approach roads" do at present.

- (2) Railway and motor services should be made more complementary by the development of rural roads. The connection of villages with railway stations through roads, should receive the best attention of provincial governments. Before a new railway line is constructed, provincial governments should be consulted in order to ascertain whether the needs of the locality could not be better served by motor transport. Before constructing new roads more or less parallel to railways, the provincial authorities should satisfy themselves whether the money could not be better spent on the development of rural roads.

Transport Advisory Council.

For such co-ordination work, the Transport Advisory Council was created as one of the results of the Road-Rail Conference in 1933. The Council is an advisory body, consisting of Member or Members of the Governor General's Executive Council concerned with communications, sitting with provincial Ministers or Members in charge of communications. In their first meeting held in New Delhi on January 7, 1935, the Council suggested that the funds available for roads should not duplicate the means of transport and that the construction of a new railway line should be settled in agreement with local governments. In a subsequent meeting of the Transport Advisory Council held in 1936, it was agreed that

henceforth the Provinces should only participate in the Central Road Fund if they adopted to the satisfaction of the Government of India, adequate rules for the control of motor traffic. This is a step in the right direction.

Conclusion.

To conclude, it may be said that transport is one of the major problems of our age. There is no branch of our national economic life which does not depend on it. Cheap but efficient means of communication are necessary not only for industrial development but also for agricultural progress. Heavy cost of transport often acts as an internal tariff barrier standing in the way of rational localisation of industries. The aim of co-ordinated competition between road and rail should be to secure for the community efficient transport service at the cheapest rate, consistent with normal profit for different forms of transport industry.

A NOTE ON THE COTTON IMPORT DUTY

1939

BY

A. K. SARKAR, B.A. (Cantab.).

1. In presenting the budget estimate for the financial year 1939-40, Sir James Grigg foresaw a deficit of Rs. 50 lakhs. To meet this deficit he proposed an additional duty of half an anna per lb. on all imports into India of foreign cotton, expecting a revenue from the duty of Rs. 55 lakhs. It is well known that India imports only long-staple cotton, hence it should be clear that the duty directly contained no element of protection to the mass of Indian producers of cotton, being in itself an avowedly revenue duty.

Sir James Grigg had always proved unpopular as a Finance Member, and the Federation of Indian Chambers of Commerce and Industry now allege that in presenting the budget estimate he deliberately underestimated revenue, chiefly in respect of Imported Sugar, "creating thereby an artificial deficit for the purpose of increasing the burden of taxation on the people." The Finance Member expected the yield from the Excise Duty on sugar to amount to Rs. 400 lakhs and the yield from the Import Duty to be Rs. 20 lakhs, or a total revenue in respect of Sugar at Rs. 420 lakhs. Against this estimate the Federation's corresponding figures were Rs. 300 lakhs and Rs. 277 lakhs, or a total revenue of Rs. 577 lakhs. Subsequent facts prove the Finance Member's figures to be woefully short of the actual to which the Federation's figures, on the other hand, show a closer approximation. In the three months ending June 1938, the revenue from the Import Duty had already exceeded Rs. 100 lakhs. The Federation has, therefore, argued that no real ground ever existed for the Cotton Import Duty, since it was designed to meet a deficit which never existed; which was, in fact, a deliberate "invention." There have been, however, more charitable interpretations of the Finance Member's underestimate. It is claimed that he foresaw the coming crisis

in world affairs and was therefore properly conservative in his budget estimate. While we do not wish to cast reflections on the political far-sightedness of the Honourable Member, this explanation does strike us as being rather ingenious. Or we can simply argue that the best of Finance Members go wrong sometimes.

2. The criticism of the Import Duty on cotton goes much deeper than a mere examination of the Finance Member's possible motives in presenting a mythical deficit. It is claimed that the duty has led to a considerable reduction in the imports of foreign cotton. There is no doubt that there has been such a reduction in the imports of raw cotton into India. Between April and June 1938, 2,40,190 bales of 400 lbs. each were imported into India, but between the same months in 1939, 1,48,445 bales were imported, *i.e.*, the imports were nearly halved. The Federation, therefore, claims that since this reduction in imports was due to the imposition of the duty, the Government is responsible for the consequent rise in the costs of the Cotton Manufacturing Industry and the diminution in its competitive strength. In brief, the present depression in the industry is largely attributed to the import duty. Further, the duty is said to have come down heavily on a branch of the Cotton Manufacturing Industry, namely the manufacture of finer cloth, which it would be particularly profitable and desirable for India to foster.

3. Arguments have, however, been advanced which attempt to answer the charge of the Federation stated above, and to justify the duty. We note four of these arguments which we classify under two headings:—

I. The reduction in imports of foreign cotton could not have been caused by the duty.

(a) In view of the American subsidy of 1·3 cents in the lb. on exports of American raw cotton, the decline in American exports to India could not have been caused by the duty which would be offset by the subsidy. In the interests of the producers of raw cotton in India, the duty must be retained as a countervailing measure.

But is it not true that the subsidy was given to stimulate decreasing American exports without any reference to the

Import Duty in India? Moreover, American cotton imported into India is a very small part of the total imports of cotton into India, and does not compete with Indian short-staple cotton.

(b) India takes only a small part of the total exports of foreign cotton. The supply to India is, therefore, elastic and the duty could easily have been passed on to the Indian importer. The reduction of imports must, therefore, be explained on other grounds than the imposition of the duty.

(c) The ground on which it can be most easily explained is that Indian manufacturers and merchants had large stocks of foreign cotton which they had to dispose of before making further purchases from abroad.

But no figures have been produced to support this argument, and its propounders are strangely silent as to the causes of this unprecedented accumulation of stock between 1938-39.

II. The duty has benefited the producer by giving him higher prices for his cotton. Moreover, the duty will encourage the production of long-staple cotton in India, and hence it will ultimately enable India to manufacture finer cloth.

As regards the latter part of the argument, it is evident that an attempt is being made to give an avowedly revenue duty the guise of a fairy godmother. The additional duty is too weak a crutch for an industry which will have to face natural disadvantages as compared to powerful and established foreign competition. As was to be expected the duty has so far had no effect at all in increasing the production of long-staple cotton in India.

We should note that the arguments under (I) and (II) are not mutually consistent. The defence, as it were, is divided within itself. For if we argue that the duty has raised the price of cotton and thereby helped the producer, we are automatically precluded from contending that it has not reduced imports. In other words the defence can either take up a purely negative attitude and maintain that the duty has not had any effect on imports, and therefore has not harmed or benefited either the producer or the manufac-

turer; or they can actively assert that the duty has aided the producer at the expense of the manufacturer.

4. There is yet another argument, the '*piece de resistance*' of the critics of the duty. It is obvious that one way by which a foreign exporter can evade an import duty on a raw product is by substituting for exports of the raw product exports of the semi-manufactured product. The Federation of Indian Chambers of Commerce and Industry had at the outset argued that the effect of the duty on Imports of raw cotton would be to increase the imports of foreign yarn into India. This would be another blow to the cotton manufacturing industry in India, and to those cottage industries which produce yarn as well as cloth. Figures show how right the Federation was in its forecast. Between 1937-38 and 1938-39 imports of cotton twist and yarn into India increased from 21.1 million lbs. to 35.4 million lbs. The bulk of this increase went to China and Japan. The latter country very greatly increased her exports to India from 14.6 million lbs. to 22.0 million lbs. in the same period. India is particularly interested in the manufacture of grey twist and yarn. Imports here amounted to 5.6 million lbs. in the first quarter of 1939-40 as compared to 2.5 million lbs. in the first quarter of 1938-39 and 1.7 million lbs. in the first quarter of 1937-38. Thus the imports of grey twist and yarn were more than doubled between 1938-39 and 1939-40.

It is evident from these figures that there had been a tendency for some increase in the imports of yarn into India previous to the imposition of the Import Duty. But it is equally evident that in relation to this tendency the import duty has had a dangerous effect in intensifying it at a moment when some check should have been imposed in the furtherance of Indian interests in general.

5. On a summing up, the Import Duty is shown in a very poor light in any impartial investigation. Strictly, we should discuss the duty as a revenue measure only, since it was imposed as a revenue duty. From this point of view the duty was based on a fictitious deficit, and has proved a failure in so far as it has been responsible for the reduction in imports. To some extent it has been defeated by the increased imports

of yarn into India. Thus, purely as a revenue measure, we cannot but conclude that it has been extremely unsuccessful.

As regards its wider effects, we have noticed that the only defence we can produce is that it has benefited the producer at the expense of the manufacturer. To argue in this manner is to follow blindly the categorical belief:—"Economic life presents us always with a choice of evils, and no course of policy is the best for everyone."¹ With India more or less committed to a policy of industrialisation the argument is itself an anachronism. Moreover, we do not believe that in India today there exists a wide disparity between the interests of producer and manufacturer. The market for the Indian producer is rapidly becoming an internal one with the progress of industrialisation. An internal market offers to the Indian producer advantages of a much more secure and stable market as compared to markets abroad. It means that the prospect opens up of joining hands with the manufacturer in eliminating the middleman, to the mutual benefit of both producer and manufacturer. It would be folly, therefore, to impose burdens on our manufacturers, and divert our producer's markets to foreign countries. Apart from these wider considerations (which may easily be pushed too far) it is questionable as to how far the duty as such has really benefited the Indian producer. For, if imports of yarn have replaced imports of raw cotton, how can the Indian producer be better off?

The case put forward by the Federation of Indian Chambers of Commerce and Industry is a powerful one. Their double claim for (1) Immediate abolition of the Cotton Import Duty and (2) Suitable measures to restrict the import of cotton twist and yarn to the average level of the years 1936-37, 1937-38 and 1938-39, in no case allowing it to exceed the maximum limit of the year 1938-39, deserves the Government of India's immediate and earnest enquiry. Nor should too much attention be paid in this particular case to the so-called "conflict" of interests between producer and manufacturer.

¹ Mrs. J. Robinson, *Introduction to the Theory of Employment*, p. 1.

MIGRATION: AS A MEANS OF RELIEF OF POPULATION PRESSURE IN EASTERN U.P.

BY

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Overcrowding drives people away from Oudh and the eastern districts of the United Provinces to the plantations of Assam, the cotton and jute mills of Bengal, and the collieries of Bengal, Bihar and Orissa. The emigrants are either landless labourers or cultivators of uneconomic holdings. Our peasants multiply without any moral restraint or foresight, with the consequence that many of their offspring are obliged to forsake their villages—so intimately associated with their happy juvenile reminiscences—to seek employment in some strange place, to struggle for bread and butter in an apathetic and dreary world.

Labour to Bengal flows ceaselessly from such districts as Mirzapur, Allahabad, Partabgarh, etc. Much of this movement is directed towards the fields where harvesting operations demand agricultural labour on a vast scale. The labour for the jute mills of Bengal is mostly recruited from Bihar and the United Provinces. Mirzapur suffers a loss of many of its inhabitants as emigrants to Bengal, who are mostly labourers from the northern parts of the district. The nature of the migration is “periodic” or “seasonal.” The peasants commence their journey with the approach of winter, in September or October; they remain away from their homes during the whole of winter, terminating their sojourn in Eastern Bengal or Calcutta by the month of April. The density of population in Mirzapur varied from 1881 to 1931, as follows:—

1931	1921	1911	1901	1891	1881
180	166	166	168	180	181

The density *per se* does not appear to be inordinately high to necessitate an exodus of people. But even with such a moderate density, the burden of numbers is not negligible, when it is recalled that much of Mirzapur is replete with forests; the extent of land available for habitation and cultivation falls far short of the requirements of the population. 50·2 per cent of the total area was culturable and the percentage of net cultivated area to total culturable area was as low as 46·9, while the area double-cropped came to 9·9 per cent of the total cultivable area, according to the Census Report of 1931. The following figures show the variation in the area cultivated from 1911 to 1921¹:—

	Percentage to total area of Cultivable	Percentage to culturable area of	
		Net Cultivated	double-cropped
1911	48·7	55·0	12·9
1921	51·7	46·3	9·4

Thus we notice that cultivation actually diminished during the decade, though the density of population remained stationary, betokening an accentuated pressure on the soil.

“It is said by someone,” says Blunt in the Census Report of 1911, “that there is not a single family in the Benares Division which has not at least one member abroad in Bengal and Assam.” Overseas migration was also resorted to by the peasants to keep the wolf away from the door. Districts like Basti, Gonda, Azamgarh and Ghazipur have lost many persons to Fiji Islands, the West Indies, to Natal and other far-off places through the indentured system of recruitment. We shall study the movement of population and the variation of the cultivated area in these districts to show that emigration overseas and to Burma was necessitated by hard conditions of living at home.

¹ *U.P. Census Report, 1921.*

Percentage variation of population, 1881—1891		Percentage variation of the area net-cultivated, 1881—1891	
Gonda	+ 14·8		+ 3·7
Basti	+ 9·5		+ 4·9
Azamgarh	+ 7·7		+ 1·9
Ghazipur	+ 6·3		+ ·5

In all the districts the area net-cultivated failed to keep pace with the growth of human numbers. It is this fact that explains the enormous streams of overseas emigration that flowed from these districts during 1901—1911.

Number of emigrants that sailed from Calcutta to various British colonies between 1901—1910:—

District		Number		District		Number	
Gonda		14,499		Azamgarh	..	4,209	
Basti	...	31,173		Ghazipur	.	2,409	

If we study the density figures for the above districts we shall find that the saturation point is overstepped as early as 1891, except in Basti where it happened in 1901:—

Mean density per sq. mile.

District	1881	1891	1901	1911	1921	1931
Basti ..	578	634	655	649	683	737
Gonda ...	447	514	494	497	518	555
Azamgarh	733	790	700	675	691	710
Ghazipur	695	739	659	606	600	634

The table reminds one of Pearl's *logistic curve* of population growth. The figures for 1921 suggest the beginning of a new cycle of growth. It may as well be only a temporary aberration, for aught we know. The phenomenal increase of numbers during 1921—31 is appalling when viewed in the light of an inadequate increase of the area net-cropped.

Percentage variation of population 1921—31		Percentage variation of the area net-cultivated, 1921—31
Gonda	+7·0	No increase
Basti	+7·8	+1·7
Azamgarh	+2·8	+3·5
Ghazipur	+5·6	-1·3

Except in Azamgarh, the area net-cultivated has advanced at a slower rate than population. In Ghazipur there is a definite diminution of cultivation while the population has increased 5·6 per cent. This portends poverty and privations of a most exaggerated nature.

When the pressure of people on the soil is very heavy an attempt is made to seek relief through an extension of the area cultivated, multiple cropping, industrialization or emigration. "The pressure of population on the soil in the eastern districts has been severe; emigration is the natural relief," remarked Blunt in 1911. The rise almost in a spurt during the decade 1921—31 has aggravated the burden all the more. Extensive cultivation seems to have reached its limits in most of the eastern districts. The following table shows the extent of the area net-cultivated and the area double-cropped in these districts²:—

District	Percentage to culturable area of	
	Net cultivated	Double-cropped
Gorakhpur ...	84·8	26·1
Basti ..	81·6	29·0
Gonda ...	75·8	31·2
Bahraich ...	71·5	28·5
Benares .	83·4	20·3
Jaunpur ...	77·7	19·8
Ghazipur ...	79·2	15·8
Ballia ...	81·5	20·3
Azamgarh	79·0	19·2

² *U.P. Census Report, 1931.*

If no extension of the cultivated area is possible corresponding to an increase of population, intensive farming may palliate to some extent the deleterious effects of overpopulation. There is no room to be sanguine about any further intensification of agriculture in the above districts, as agricultural water-supply has already reached its limits.

Thus the salvation of the peasants lies in industrialization and emigration. The sugar mills started under the *ægis* of the protective duty on foreign sugar have no doubt absorbed a part of the floating population, nevertheless the problem of the landless proletariat still bristles with difficulties which must be tackled by the politician no less than the economist and the captain of industry and trade. How far the growing demand for labour in the sugar mills has been responsible for the falling off in the number of emigrants from the U.P. is a matter of speculation, as the depression in trade and industry has worked concurrently in reducing the demand for labour force required in Bengal, Bihar and Assam during recent years. It is an irony of fate that just at the time when the congestion in Oudh and the eastern districts, aggravated enormously as it was by the spurt in 1921—31, stood most in need of relief the slump in prices set in to retard the flow of surplus labour from the U.P. to the mills and factories and plantations of other provinces.

Is the shifting of population from the countryside of the U.P. to other provinces an unmixed blessing for the farmer and the community? Obviously not. The workman in Calcutta or its environs who leaves behind his family in the village usually seeks diversion after the day's strenuous labour by resorting to drink or the borthel. The workers from Bihar, the Central Provinces and the United Provinces bring women with them to work in the mills of Bengal, who are not the wives of the men with whom they reside. The Assistant Director of Public Health of Bengal, in his evidence before the Labour Commission said, "No privacy is possible in the present condition of housing. There is open prostitution near the workers' houses."

An emigrating region is invariably a loser in terms of labour value. Such loss is, however, offset by the regular flow of income from the country of immigration to homeland. Indeed, emigrants' remittances and income from various subsidiary occupations enable the peasants to keep their heads above water. The total sum paid by money order during 1928-29 throughout the Province was 1,385 lakhs. Of this amount $7\frac{3}{4}$ crores or 56 per cent were paid in the districts from which emigration takes place on a large scale. The profit derived from emigration by agriculture is not limited to periodic remittances. When the emigrant returns home he, not infrequently, brings large sums with him. "One darwan of a bank in Burma retired with a lakh which he made by lending principally to the bank's clerks."³

The effects of rural migrations are many, some are beneficial, while others are baneful. Migration of young peasants, who leave their wives behind, not infrequently leads to disruption of the family, desertion of young wives, and commercialized vice in industrial centres. On the other hand, it is the emigrants' remittances that render it possible for the man behind the plough to make ends meet. Again, when the emigrant returns home, he reduces the burden of debt, makes improvements in his house, often redeems land mortgaged and his standard of living improves; while his manners, mode of living and philosophy of life savour distinctly of life in the city, far divergent from those obtaining in the conservative Indian village.

³ *U P. Banking Enquiry Committee Report.*

CO-OPERATION AND AGRICULTURAL CREDIT¹

BY

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Amongst the agencies which provide production credit to the farmers, co-operative credit societies are perhaps the most important. At one time it was considered that co-operation would solve all the farmers' problems and bring about a millennium but unfortunately these high hopes have not been justified by recent experience. It is not the purpose of this note to examine the method and procedure of loans given by the co-operative societies in different countries of the world. This differs from country to country. However, it is worth while to examine the basic postulates of co-operation and especially of co-operative credit and see how far in practice these ideals have been realised and, if not, what were the causes which have operated to the contrary. The basic idea of a co-operative credit society is to capitalise honesty and character. It is a form of mutual help between persons who know each other rather intimately and that is the main reason why in most countries the co-operative law insists that the co-operative credit societies should not be big and should be confined to one village or to a class of persons who know each other well. The idea is that in a small group like this it will be possible to capitalise honesty and character, and loans will be made to those people who have no tangible material security to offer but are respected and honest persons. Moreover, in a system like this, in theory at least, the credit, and especially the use to which such credit is put, could easily be controlled as everyone knows everyone else's business. It was presumed that this group would be able to collect the savings from among themselves, or at least there would be some people who had capital and

¹ It was prepared for League of Nations.

who would come forward with it and deposit it with the village society which could lend it to needy members; or, with the mutual security it would be possible to borrow from other institutions where surplus funds were available. It was for this reason that it was said that the co-operative movement capitalised the honesty of the farmer and linked the farmers in the remotest village with the biggest capital markets of the world. The system was to work like this:—The village societies borrowed from the district banks, the district banks borrowed from the provincial banks and the provincial banks raised loans either by way of debentures or attracted deposits in the money market or in big cities. In a good co-operative society all initiative should come from within—the need of helping one another must be felt by the people themselves and the funds must be available locally for distribution among the needy members. If such is the case it will be possible to supervise the spending of such loans and the borrowers can be questioned, and in some cases also advised as to how the loan is to be spent. But it is extremely regrettable that this glorious ideal has been very seldom realised in practice. What has happened is that in most countries the small farmers have been unable to obtain money or unable to borrow it at reasonable rates of interest. Political pressure has been brought to bear on the governments to do something and as a result the governments had to decide to start the co-operative movement. In several countries this movement has been virtually sponsored by the government; the ideal of self-help has been non-existent from the very beginning. Those who have joined the movement and have become members of the co-operative societies have done so with the desire that they should be able to borrow as much money as they possibly could. In an ideal co-operative society there is a joint and several unlimited liability of members and this ideal has been insisted upon in almost all co-operative societies. As a result of the strict observance of this rule—that is, that every village co-operative credit society must have an unlimited liability, the well-to-do farmers who are not in need of money do not come into the movement, so the major part of the ideal—that a co-operative society was to be an

association of men who had some spare funds to invest and of those who wanted to borrow, changed into a society which had no funds at all to invest but all members of which wanted to borrow. The result was that all co-operative societies became societies of borrowers and in a situation where everybody is a borrower, no question of supervision or control of the loans can arise. It was a case of helping one and being helped by the other—a policy which resulted in almost a catastrophe, and thus the whole movement has become very weak.

As the question of co-operation is a very important one, I think it desirable that a careful study of the problem should be made by the League. In my opinion, if the co-operative movement, especially the co-operative credit movement, is to stand on its own legs and is to inspire any confidence in the investors, the whole movement must be reorganised and in this matter the League can do a great deal of work which would be very beneficial to countries in guiding the co-operative movement.

I have read a study which has been made by the Section of Technical Collaboration with China: the book is entitled "Co-operation for Economically Undeveloped Countries." This study was prepared by Mr. W. K. H. Campbell who was formerly a Registrar of Co-operative Societies in Ceylon. I have no intention of making a detailed criticism of this report, but I would like to bring the matter to the notice of the authorities that the whole treatment of Mr. Campbell is on the old line of an enthusiastic co-operator, and all that he has to say sounds very well on paper but does not work in practice. He lays considerable stress on the importance of the unlimited society, but unlimited liability is a farce which has no foundation.

It has been realised in India, especially in Burma, that it is almost impossible to enforce this liability. In this I am also supported by Dr. Koestner who remarks that if co-operative societies are to make any progress the liabilities of societies must be limited. It is only in this way that well-to-do members can be made to join the society. Again, there is one very important matter regarding the deposits in

the society. At present there is no secrecy about the deposits—and those who have money do not wish everyone to know about it. I believe that if the League is to advise any country to develop co-operation the person to be appointed to study the problem should be a banker and a financial expert and not a co-operator because the whole matter is financial.

I am afraid I am going out of my way in making these remarks, but as the co-operative credit movement is one of the most important agencies which supplies credit to farmers in many countries of the world, it is necessary that the matter should be properly studied by the League. Moreover, if any financial institution is to advance funds to the co-operative banks, that institution must know the financial position and soundness of the co-operative banks.

I shall confine myself to making a few remarks on three topics: (1) the type of co-operative society; (2) the relationship of the primary society with the central organisation; (3) long-term credit and co-operation.

1. Limited or Unlimited Liability?

There has been a universal tendency in almost all countries that a primary co-operative society for the provision of credit should have unlimited liability. I have already observed above that it may sound very well in theory, but in practice the unlimited liability cannot be enforced when the occasion demands it. This has been our experience in India, especially in Burma. Even in Europe it is felt that the unlimited liability society has not been a success. Dr. Koestner's remarks in this connection are very significant. He says: "The Raffeisen type of credit co-operative with unlimited responsibility of members, especially if it attempts to become a universal organisation for all the economic purposes of a village (a common practice in most countries of Eastern Europe), is hardly to be recommended. It introduces a principle of solidary responsibility for all the members of the community, whether successful or not; a principle can never be enforced in case of necessity and well-to-do farmers, seeing that they

risk the whole of their property by becoming members, avoid it, so that it may often degenerate into an organisation of poor and inefficient farmers of the locality, dependent in its activity only from outside (State) resources, and thus distort in the eyes of the public the very conception of the co-operative principle. In such co-operatives the principle of individual securities given for loans is logically in contradiction to the solidary responsibility principle, may often be neglected and involve the co-operatives and the State banks financing them into great embarrassment.”²

In my opinion, which perhaps is not held by most co-operative experts, co-operative societies in the village should be of the multiple type and their liability should be limited. The Society should have as much share capital as possible. By a multiple society, I mean a society which caters for all the needs of the farmers and not only for their credit requirements. A mistake has been made in most countries by laying too much stress on co-operative credit and neglecting other forms of co-operation. Fortunately now it is being realised that the other forms of co-operation are more essential than credit. The fundamental defect in a co-operative credit society is that once the farmer has secured the loan he ceases to take any interest and the society degenerates into a group of borrowers without any ideals of co-operation. On the other hand, if a society is of the multiple type and caters for almost every need of the farmer, the farmer is constantly brought into touch with the society and this creates a real spirit of co-operation amongst farmers. It has been said that in countries like Denmark it has been proved best for a farmer to become a member of different societies catering for different needs. It may be possible in a highly developed country like Denmark to have individual societies for separate purposes, but in countries where farmers have not developed to such a standard it is very difficult to have a number of societies, especially when we find that farmers are faced with great difficulties even in finding competent men to take charge of a single society only. Therefore I am of the opinion that if

² Note by Dr. N. Koestner.

co-operation is to be developed at all, it will be developed on the lines which will bring home to the farmer the necessity of combining with others for his own benefit and when he realises from his every-day experience that this mutual co-operation is helping him to solve his day-to-day problems. For instance, if he is a member of a multiple-purpose society, a society which supplies him with seed, helps him in marketing his crops, if he is a dairy farmer, helps him in manufacturing dairy produce, provides facilities for transport and looks after the general welfare of the community, there are more chances of success than if he were only a member of a credit co-operative society which he would rarely visit after he had secured his loan. Again, another matter which must be brought home to the co-operators is that there must be an efficient and paid management. The suggestion of paid management perhaps sounds rather uncooperative, but there is a limit to every man's sacrifice for the general cause. It has been found again and again that most co-operative societies fail because of bad management. It would be highly desirable that persons in charge of these societies should be given some training in a central institution and especially some training in the methods of accountancy and a general business training. Again, it will be necessary, if these societies have to mobilise the savings of their members, that a strict secrecy of the accounts be kept as is done in any banking institution.

2. The relationship of the primary society with the central organisation.

This brings us to another important matter, namely, what should be the relationship between the primary society and the central organisation. Co-operators persistently insist that there should be as much decentralisation as possible and each group should be made autonomous to the largest possible extent. Generally speaking, primary co-operative credit societies are linked with the central union or the central bank and the central bank is linked with the provincial or the apex bank. I have given a good deal of thought to the matter and have asked again and again many

co-operators the necessity for these independent central banks, since the financing is mostly done by the apex bank, to which the central banks generally resort. If a borrower in a village needs money, he applies to the society, the society generally applies to the central bank and the central bank applies to the apex bank. We have to consider the possibility of eliminating as many intermediaries as possible and the question arises as to the usefulness of these central banks. It may be said that it would be very difficult for the apex bank to supervise the activities of these small banks; the answer of the co-operators is that centralisation is against the principles of co-operation. It has been discovered that these intermediary banks do not scrutinise the position of the village societies as expected of them, and also the cost of the credit is raised to the borrowers. Now, would it be possible to eliminate these central institutions without any danger to the movement? While I was an officer in the Agricultural Credit Department of the Reserve Bank of India, I had the privilege of seeing some of these societies which were directly connected with the Provincial Co-operative Bank in Bombay, and I found that these societies were far better supervised and their financial position was sounder than in the case of societies which were linked with the central banks. I believe that it will not be a gross violation of the principle of co-operation if the central banks were made branches of the apex bank and the supervision of the whole system was carried out by the apex bank itself which provides the greater proportion of the funds.

3. Long-term credit and co-operation.

Again in contrast with the opinion of other authorities, I am of the opinion that neither the co-operative societies nor the co-operative banks should provide long-term credit to the farmers. Co-operative Land Mortgage Banks have been providing long-term credit to the farmer in various countries and have been issuing bonds. But it must be realised that these banks are not strictly co-operative. It will be more correct to call them semi-state banks, if not full-fledged state banks. The debentures of most of these

banks are guaranteed by the Government of their country. In some cases they have been exempted from income-tax. Whatever are the merits or demerits of tax exemption and Government guarantee, it certainly is not real co-operation. In my opinion co-operative banks should confine themselves to provide short-term and medium-term credit only. The example of the United States is always held as showing the success of the co-operative banks in providing long-term credit. The distinguishing feature of the Farm Loan Act, passed in 1916, was the creation of the farmers' co-operative associations in the form of Farm Loan Associations, which it was hoped would ultimately control the entire system in the interest of borrowers. The enthusiasm of the Congress in creating co-operative associations was based on the recommendations of the United States Commission which was very much impressed by the success of German "Landschaft." It is very unfortunate that the system in practice is anything but co-operative. The co-operative principle which has been introduced from above has not made any headway.

As a matter of fact the very spirit of co-operation is lacking in the farm loan associations. The law provides that none but borrowers can become members of these associations. This clause deprives the associations of any genuine co-operative element. It attracts only those people who are in need of money and have to become members of the associations in order to be eligible to borrow from the Land Bank. The law provides that every borrower for every 100 dollars must subscribe 5 dollars as share capital of the associations. This enforced subscription to the associations' stock to the extent of 5 per cent of the borrowed money is very seriously objected to by the borrowing farmers. They become members and pay for their membership not because they want to, but because they have to. They automatically cease to be members when they have paid off their loans. This means that there is no permanent bond between the members of the associations. Naturally, the members do not take any interest in the associations and no co-operative spirit is developed as the members view the whole thing from their personal standpoint. In this system there is no place for those persons who are interested in the

farmers' welfare, and perhaps are themselves farmers but, owing to their better circumstances, are not in need of borrowing money from the Federal Land Banks. This deprives the associations of some very valuable members. As regards the eventual control of the entire system by the borrowers this is becoming more and more impossible in the face of the large share capital of the Government and the interest of the bondholders. The successive annual reports of the Federal Farm Loan Board (now the Farm Credit Administration) suggest one difficulty after another in realising that dream. The large majority of farmers themselves do not desire this control. What they want is abundant credit at cheap rates. The cost of credit to the borrowers under this system becomes higher when money is borrowed through the associations whose expenses, however small, the farmer has to pay, and he loses an additional amount through his enforced subscription to the association's stock. It has often been said by enthusiastic advocates of the system that the farmers do not suffer any loss because the Federal Land Banks pay dividends to the Associations on their stock and the Associations pay the farmers. This sounds all right in theory but actual experience has a different story to tell. In the first place many banks sometimes have not declared any dividends at all, and this has meant a direct loss or higher cost of credit to the farmers. When dividends have been declared they have not been received by the farmers in their entirety, a major portion being held by the Associations in the form of reserves from which the farmer does not derive any financial advantage. As soon as he has paid off his loan he ceases to be a member. To what extent farmers have been deprived of these dividends was made clear by the Farm Loan Board in its report for the year 1922, and the following figures prove the truth of this contention. The dividends distributed by the National Farm Loan Associations have averaged only 46 per cent of the dividends distributed by the Federal Land Banks. By 1922 the total amount distributed by the Land Banks to 3,645 Associations was over \$1,826,000, of which the Associations redistributed to their members only \$937,000. Many farmers' organisations have protested

against this so-called co-operative system, and in its fifth report the Federal Farm Loan Board itself recommended direct borrowings and advanced the following arguments in support of their recommendations:—

1. That most farmers after having procured their loans take little or no interest in the affairs of the Association, because they lack the spirit of co-operation.
2. That some Associations cease to function after the organisers have obtained their loans, thereby failing to serve the communities in providing farm mortgage loans.

For these reasons the Board expressed its conviction that the Federal Land Banks should be authorised by law to make direct loans to the borrowers.

CO-OPERATION IN U.P.

BY

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The Co-operative Movement in this province in an organised form dates only from 1904 when the Co-operative Credit Societies Act was passed and as a consequence a new department was established. The object of the Act was to provide cheap and easy credit to the agriculturists, artisans and persons of limited means and to encourage the habits of self-help, thrift and co-operation among them. A system of 'patti societies' was introduced in the beginning whose jurisdiction extended over a number of villages. This had its own defects in respect of mutual knowledge of borrowers and the supervision over the use of loans. It was, therefore, replaced by the principle of one village one society.

In 1911-12 the number of societies was 1,946. Their membership and Working Capital were 76,812 and Rs. 10,25,452 respectively. The working of the Act of 1904 during those years, however, revealed certain defects. Societies other than credit could not be registered under the Act as also the several central banks which had been organised to finance the societies. In order to remove these and other minor defects the Co-operative Societies Act of 1912 was passed.

The progress of the movement between 1912 and 1924 was very rapid. Most of the societies were organised on insecure foundations without a proper grounding of the members in the principles of co-operation and more attention was paid to quantity than to quality. This landed the movement in difficulties and it was felt that it was not working on proper lines. In 1924-25, the number of societies was 6,000 and their membership and working capital were 1,55,149 and Rs. 1,12,51,865 respectively. In the same year a Committee, to enquire into the working of

the Co-operative Movement, was appointed and its report which was published in 1926 formed the basis of future development. A policy of consolidation and cautious expansion was, therefore, adopted during 1926—30 and as a result of the weeding out of bad and dormant societies, their number fell and their membership and working capital also went down. Between 1930 and 1934 the movement received another setback from the economic depression which caused a calamitous fall in the prices of agricultural produce. Recoveries from societies fell abnormally and fresh advance to the members was very much restricted. It, however, soon recovered from the effects of economic depression on account of the reserves built in previous years and there has, during the past five years or so, been considerable improvement and expansion of the movement in all directions.

Agricultural Credit Societies.

This is, briefly speaking, the historical background of the movement in this province. There are at present over 10,000 societies of all types and their membership and working capital are about 4,00,000 and Rs. 3 crores respectively. Out of these 10,000 societies there are over 7,000 agricultural credit societies whose membership and working capital are about 2,71,000 and Rs. 1,20,00,000 respectively. Over 60% of the working capital of these societies is their own capital; in other words, it represents the saving of members in the form of the shares and deposits. But for the existence of co-operative societies so much money would either have been frittered away or gone to the pockets of money-lenders. Having regard to the owned capital of societies and the margin of interest obtaining between rates charged by societies and moneylenders, the agriculturists may be said to have saved at least over a crore ever since the movement started. There are about 1,400 societies which are working with their own capital and the number of members whose normal requirements do not exceed the amount of their shares and deposits is increasing. People sometimes remark that these 7,000 societies with over Rs. 1 crore as

their working capital touch only the fringe of the problem of village organisation and rural indebtedness which stands at Rs. 186 crores in 1,05,640 villages. That is undoubtedly true. The problem is indeed vast and the achievements are by no means insignificant. The movement, if it is to be of any use, must grow from within and must not be superimposed. That has been the motto of working so far. The consequence was a smaller number of societies which will now provide the nucleus for expansion and development.

Land-Mortgage Societies.

Efforts have also been made to organise land-mortgage societies for the redemption of previous indebtedness and for making permanent improvements in agriculture. There are five such societies whose membership is 556. During the year 1937-38 they advanced to the extent of Rs. 42,000 mostly for the payment of prior debts. Such of our societies as are old and are working with their own capital also advance loans to their members for the payment of old debts. But, on the whole, it must be admitted that co-operative societies do not provide long-term finance as there is no arrangement for long-term capital. The Central Banking Enquiry Committee remarked, "While the evidence available to us tends to show that rates of interest have come down wherever the co-operative credit movement has been successful there is very little evidence about the reduction of total indebtedness through the agency of co-operative credit societies. Indeed the study of Provincial Reports leads to the irresistible conclusion that the primary societies, central banks and provincial banks are not in a position to finance the agriculturists adequately for the discharge of old debts."

Cane-Supply Societies.

In spheres other than credit the movement has of late been making unexpected strides. Over 2,500 non-credit societies have already been formed and they cover a vast field of activity from the supply of cane to factories down to production of milk and *ghee* in the villages. Since the

introduction of Cane Development Scheme in 1935 the work of marketing cane through co-operative societies has expanded rapidly. There are two kinds of Cane Marketing Societies, (1) those formed in gate areas as a part of the Cane Development Scheme and (2) the others organised by the Co-operative Department for the whole district or sub-division. Theoretically their objects and organisations are similar but in practice the former have been paying attention both to agricultural improvement and marketing while the latter till recently confined themselves principally to marketing, though now they are paying increasing attention to development also. One distinction between them, however, remains. The former deal with small compact areas while the latter have extended area of operation.

The membership of these societies rose from 10,624 to 29,047 and an area of about 1 lakh acres has already been brought under their control. The societies under Cane Development Scheme besides doing development work through wide distribution of improved seeds and fertilizers, supplied 1.34 crore mds. of cane during the year 1937-38 and there were no losses. The other societies marketed 1.42 crore mds., earned Rs. 2.72 lakhs and had a total profit of Rs. 26,356.

The concessions given under the U.P. Sugar Factories Control Act of 1938 (a right to get a contract, a right to a reasonable commission, a right to equitable purchase and compulsory arbitration) have enabled rapid expansion of these societies since the close of the year 1937-38, but it is noteworthy that even without this legislative prop nearly 1/5th of the total cane-supplies to the factories were handled by cane societies. During the crushing season 1938-39 the societies supplied 1/3rd of the total cane supplied to the factories.

Production of Milk.

The dairy and milk societies which taken together number over 30 are tackling the problem of milk-supply in urban areas on an organised basis. The advantages from these societies are two-fold. The members of milk socie-

tiés, namely, the poor agriculturists get better prices for their milk and are economically free from the dictates of town *halwais* and *doodhwalas*, while the townsmen are assured of a regular and unadulterated supply of milk at rates lower than those of private *ghosis*. Of these societies the most important is the Lucknow Co-operative Milk Union to which are affiliated about 22 societies situated in a compact area in and around Bakshi-ka-talab about 15 miles from Lucknow. The Union handled 1,41,440 lbs. of milk in the year 1937-38 and its daily sales now average 28 mds. A grant of Rs. 30,400 was received from Government last year, out of which Rs. 5,400 was for the construction of common milking sheds and wells in the villages and the balance for the purchase of scientific apparatus and equipments. The Union also arranged for the purchase of cattle of heavy milking breeds from Hissar for members of its affiliated societies and has now equipped itself with a milk van for speeding up its milk-supply. Besides the one milk collecting centre at Bakshi-ka-talab two more collecting centres have been opened at Chinhat and Goshainganj at a distance of 8 and 12 miles respectively from Lucknow.

Ghee Unions.

The ghee societies have now passed the stage of experimentation and have definitely set themselves on the road to expansion and improvement. Their objects are to eliminate the middlemen's profits, to supply unadulterated ghee to the consumers at reasonable rates, to improve the quality of ghee by the application of modern scientific methods, to improve the breed of animals and to secure better prices for the producers, namely, the villagers. They number nearly 300 with a membership of about 6,000 and are federated into 5 Unions in the districts of Agra, Etawah, Mainpuri, Bulandshahr and Meerut. The ghee dealers used to pay to the producers for their ghee from 30 to 40% less than the market rates. But with the advent of ghee unions these rates have been brought down to 15 to 20% and this has resulted in substantial gain both to members and non-members. The ghee societies have also introduced standard

weights and measures and have thereby saved their members from fraudulent malpractices to which they were formerly subjected by the ghee dealers. The amount of ghee marketed during the year 1937-38 was 4,305 mds. on which a profit of about Rs. 20,000 was earned. Apart from the prices contracted for, members were paid Rs. 5,200 as bonus on supplies. In order to increase the number of societies and extend their activities Government have increased the yearly grant of Rs. 12,500 to Rs. 25,000 during the year 1939-40.

Consolidation of Holdings.

There are at present 130 societies in the province and the total area consolidated so far is over 56,000 bighas of land. The number of plots have been reduced by one-tenth on repartition. Besides Bijnor, Saharanpur, and Moradabad which were the pioneer districts in this respect, the work at present is in progress in Muzaffarnagar, Meerut, Bulandshahr, Agra, Etawah, Fatehpur and Rae Bareilly also. The success achieved so far is satisfactory; the cost of consolidation comes to about 6 as. per acre. Reports on record show that there is a keen desire for consolidation on the part of cultivators in the neighbourhood of areas where consolidation has been effected. The whole work from beginning to end is done by persuasion and propaganda and no society is registered until actual transfer of holdings has taken place on the spot. As unanimous consent is a condition precedent to registration, it happens not infrequently that work is held up by the obstinate attitude of some member. Sometimes the entire labour of months is undone. A bill for the consolidation of holdings is also before the legislature. It provides that the cultivators of more than one-third of the cultivated area of a village may apply in the prescribed form for the consolidation of such a village. The bill when passed into an Act will naturally hasten the pace of consolidation of holdings societies inasmuch as the few obstinate and indifferent cultivators who arrest the progress of consolidation work will have to join the majority for the common good of all.

Cottage Industries.

The Co-operative Department in U. P. has been alive to the need of improvement in the lot of the weavers by organising co-operative societies among them for the purpose of equipping them with improved handlooms and appliances and arranging for the sale of their products. A few weavers' societies were consequently organised but progress could not be made for want of funds. Since the year 1934 when the Industries Department drew up a scheme for the utilisation of the Government of India's grant of Rs. 72,000 (since raised to Rs. 86,400) for the promotion of a handloom weaving there has been appreciable expansion of weaving societies in collaboration with the Department of Industries.

The Handloom Work on Co-operative lines through registered or unregistered organisations is at present carried on at Bara Banki, Fatehpur, Ichauli, Sandila, Mallawan (Hardoi), Etawah, Sikanderabad (Bulandshahr), Gorakhpur, Amroha, Mau (Azamgarh), Maghar (Basti) and Saidraja (Benares). The first four centres have registered stores under the Co-operative Societies Act. At Bara Banki, Sandila and Etawah Handloom Scheme is working fully but at Mallawan (Hardoi), Sikanderabad and Saidraja no grants for Handloom Stores has so far been given. Organisation of Co-operative Stores at Gorakhpur, Mau, Saidraja and Amroha is in hand.

Rural Reconstruction.

The Co-operative Department has been the pioneer in the field of rural reconstruction in this province. About a decade ago rural reconstruction work was started in Benares, Fyzabad and Partabgarh districts on an intensive scale. Besides there are about 2,000 Better Living Societies whose operations embrace the most varied activities from the reduction of wasteful expenditure on social customs and ceremonies to the improvement in agriculture, introduction of cottage industries, adult education, health and sanitation, etc. In the scheme of rural development formulated by the Rural Development Department the very foundation of the whole

structure is a Better Living Society. The staff of the Rural Development Department is, therefore, primarily concerned with the organisation of Better Living Society in every village of the zone under his charge for the furtherance of its programme. And as soon as it is organised and has worked for some time it is entrusted to the charge of the staff of the Cooperative Department. The society is expected to undertake the function of credit and marketing as well later on.

Women and Co-operation.

It has been repeatedly remarked that the strongest ally of co-operation is the housewife as it is she who can best avoid wasteful expenditure and can practise the habit of thrift so far as domestic economy is concerned. "Once give her the knowledge that something better is possible for home and family all fatalism will vanish and she will provide that determination to rise which must be the edifice of all good co-operation." Co-operation among women naturally finds a place in the activities of the Department and there are about 100 registered and unregistered societies mostly for thrift, better living, education and home products. The work is confined mostly to the cities and the interior of a few districts like Fyzabad, Jalaun, Moradabad and Partabgarh, etc. This has been possible with the staff of one Lady Inspector who is assisted by half a dozen Lady Supervisors. An appreciable expansion and development of work among women is, however, not possible unless ladies of respectable families come forward in sufficient number and render help to this branch of the movement.

Marketing of Agricultural Produce.

It has invariably been said that co-operative credit in order to be beneficial in a marked degree to the farmer must be buttressed with co-operative marketing. The Co-operative Department repeatedly emphasised this need in its various reports and had had the support of various Committees and Commissions on the point. The Provincial Banking Enquiry Committee considered co-operative marketing most promising of suggestions and remarked, "We must insist

that the success of co-operative credit is jeopardised to a large extent by the absence of organised marketing." But for a few scattered attempts here and there nothing could, so far, be done on systematic lines for want of funds.

The department, however, prepared a Scheme of Co-operative Marketing of Agricultural Produce on comprehensive lines and submitted it to Government for approval. The Scheme was approved by Government in January last and a grant of Rs. 17,000 was sanctioned for the employment of Supervisors. It was put into operation in March in order to catch the *rabi* harvest. About 80 centres of marketing were fixed in the province covering the circles of all Assistant Registrars. The commodities selected were wheat, gram, oilseeds, etc. No particular method of sale was recommended for adoption by the staff. The Assistant Registrars were given full discretion in the matter in accordance with local conditions and circumstances. In some places the use of *pucca arhat* method was made while in others the produce of members was sent to the *Arhatiya* who made them an advance on the security of the produce and adjusted the accounts when it was finally sold. The system of collective bargaining was also utilised in order to secure the best terms from the *beopari*, the society making it a rule to prohibit direct dealings by individual members themselves. In a few cases merely direct sales by members were watched over by the supervisors in order to ensure fair weighment and prevent any fraud or pilferage. Apart from the sales in the market as stated above the societies also supplied grain to about 30 central and district jails in the province in accordance with the terms of the tenders accepted by them.

The statistics with regard to the marketing operations are under preparation and, therefore, no precise figure can be given. It is, however, expected that over 1,50,000 mds. of grain of the value of over Rs. 4,50,000 was handled by Co-operative Societies this year. Of this over 30,000 mds. of grain has been sold to the Jails and about 75,000 mds. has been sold in the market while over 45,000 mds. of grain is still in stock. The members have been saved not only from unfair weighment, customary charges and other mal-

practices but in most cases they have substantially gained so far as the rates are concerned.

Co-operation among Depressed Classes.

Attempts were in the past made by the Co-operative Department to effect an improvement in the condition of the depressed classes through co-operative methods. As a result some societies mostly for the supply of credit came into being, but for want of special staff and difficulties of supervision no further expansion has been possible. Government have recently approved a scheme involving an expenditure of Rs. 14,130 for the purpose of undertaking work among depressed classes on systematic lines. In particular, the nature of work will be the organisation of Better Living Societies, supply of cheap credit, improvement in the industrial pursuits and the betterment of housing conditions. A sum of Rs. 10,000 out of the above grant has been earmarked for giving subsidies to such members of co-operative societies as effect housing improvements such as opening of chimneys, making drains and boring of soakage-pits. The subsidy will be given only on a contributory basis. In other words, no grants will be given unless and until contribution from members towards part-payment in cash, material or labour is assured.

Provincial Co-operative Union.

The U.P. Co-operative Union came into existence in 1928 and is the non-official body to which are entrusted the duties of recruitment, training, supervision and control of the Supervisors. The constitution provides for a majority of non-official members to manage its affairs under the guidance of the Registrar as its president. The general body which is the supreme authority consists mostly of delegates returned by member banks and societies and a few nominated and *ex-officio* members. The delegates hold office for three years. They elect from among themselves a Provincial Committee, which has control over the supervision and organisation of societies. The day-to-day administration is entrusted to an Executive Committee elected by the Pro-

vincial Committee. Out of 71 Central Banks in the United Provinces 58 have accepted the scheme of provincialisation. Again out of these 13, 8 are its additional members. 27 isolated societies are also its members. Due to the organisation of a large number of cane-supply societies, rural reconstruction activities and the Better Living Societies and Unions, the membership is increasing year after year. The total number of supervisors under the control and supervision of the Union is at present over 350. The income of the Union both from the members and Government grant was over Rs. 2.20 lakhs in 1938-39. Government grant for the supervision of credit societies for the year 1938-39 was Rs. 75,000. Special grants for consolidation of holdings, ghee and milk societies, work amongst depressed classes, poultry societies, and for multi-purpose societies are also placed at the disposal of the Union. With the development of the movement in several directions particularly in the marketing side and formation of multi-purpose societies, the number of supervisors under the control of the Union is rapidly increasing and the responsibilities of the Union are correspondingly enhancing. The Executive Committee has recently appointed a sub-committee to draw up a constitution for the Provincial Conference in order to make it more representative of the movement in the province.

Training.

The Department lays special emphasis upon sound and efficient training of the departmental staff and the employees under the Provincial Co-operative Union. There is a regular Co-operative Training Institute at Partabgarh which is also the headquarters of the Deputy Director of Agriculture and there is an Agricultural farm close to it. The training is in charge of two Inspectors of the Department and there are usually two classes at the institute, namely, those of auditors and supervisors. There is no annual classes of Inspectors. A class is held whenever a batch is recruited and its training lasts for 9 months at the Institute and practical training in the field under an Inspector. The training of the auditors and supervisors lasts for about a year including practical training in the banks and societies. In addition

to Co-operation and Agriculture, training is also given in rural economics, civics, adult education, scouting, public health, first aid, elementary Revenue Law, Revenue papers, and the village 'Panchayat' Act. Of late it has become necessary to establish two other training centres in the east and west of the province in order to train the ever-growing staff of Inspectors and Supervisors in connection with the Marketing Scheme and to depute two Inspectors at each place for the purpose.

The training of panches and secretaries was taken on a comprehensive scale since the year 1936 when a grant of Rs. 1,00,950 was allotted to the Local Government by the Government of India under the scheme of co-operative training and education. The object of the scheme is to train panches and secretaries of societies in the principles of co-operation and the practical working of their societies in order to enable them to discharge their duties efficiently. 162 classes of secretaries (15 attending each class) and 332 classes of panches (21 attending each class) have been held during the past two years and thus about 2,166 secretaries and 7,445 panches were trained till 31st March, 1938. It is expected that about 1/3rd of the panches and secretaries of our societies will have received training by 1939-40.

Propaganda.

The movement has suffered much in the past for want of propaganda and publicity. The Department has, therefore, recently established a Publicity Section in charge of a Publicity Officer for the purpose of carrying the message of co-operation throughout the province by a regular well-organised and well-sustained campaign. This is done by the publication of articles on Co-operation and allied subjects, both in English and more particularly in Hindi and Urdu papers. Popular notes on the day-to-day activities of the Department are sent to the press as frequently as possible. Lectures are delivered at the meetings and conferences which are organised in selected centres in rural areas and are attended by members of co-operative societies, non-members, officers of other Development Departments and leading non-officials of the locality. An effective propaganda is also

done in the exhibitions by means of charts and posters on co-operation and allied subjects while melas, shows and fairs are also utilised to spread the message of co-operation among the public. A series of talks on Co-operation are now and then arranged at the Lucknow Radio Station in order to enlighten the public on the much misunderstood subject of co-operation. It is also intended to deliver from time to time lectures in schools and colleges in order to create an interest in co-operation among the student community.

State Aid.

Unlike Bombay, Madras, Burma and Bihar, the Co-operative Movement in U.P. is still governed by the Co-operative Societies Act II of 1912. The total cost to Government during the year 1937-38 was Rs. 5.37 lakhs while Government have provided over Rs. 7,45,000 in the budget for expenditure during 1939-40. This includes increased grants for the expansions of certain schemes as well as new grants, for propaganda, depressed class societies and poultry scheme etc. Besides, special grant of Rs. 1,07,000 and Rs. 50,000 have been made for co-operative marketing and the establishment of Provincial Co-operative Bank respectively. Co-operative Movement these days looms largely in all provincial policies and programmes for the uplift of the rural population and the avowed intention of the Government is to encourage its development by all possible means. In the course of his Inaugural Address delivered at the 22nd Session of the Provincial Co-operative Conference held at Bijnor in February last, the Hon'ble Dr. K. N. Katju, Minister of Justice and Development, observed, "... Over and above all, the present Rural Development Department is engaged in preparing the ground for co-operative work on a country-wide scale. As you know, about 300 villages more or less are included in every rural development zone in each district, and according to our plan, it is the function of officials and non-officials in charge of rural development work not only to ameliorate the conditions in the countryside in the matter of public health,

sanitation and hygiene but also to spread the gospel of co-operation throughout the villages. We are all endeavouring by our campaign against illiteracy, by the provision of free libraries and reading rooms, by a liberal supply of newspapers, by the establishment of better living societies and by the construction of 'Panchayat Ghars,' to instil in the mind of the villager the merits and beauty of co-operative organisation in the village But times have now changed and co-operation has come into its own. The problem will not be of money. Money we hope we will get and for the asking."

Future Plans.

This is, in brief, the present position of Co-operative Movement in the province. There has been all-round expansion of the movement and in some cases an entirely new ground has been broken. The future is still much brighter. The obstacles which have all along stood in the way of its progress are gradually disappearing. Schemes for the expansion of education in rural areas, improvements in agriculture, introduction of cottage industries, friendly attitude of the zemindars and the conferment of certain rights on the tenants by the New Tenancy Bill, all provide a favourable field for the development of co-operation while the effect of several debt acts has only been an increased demand for the organisation of co-operative societies for the supply of credit.

In order to make full use of the present opportunities the Department has adopted an active policy of expansion on well-conceived lines. The programme is to organise a co-operative village bank or multi-purpose society in every village which will embrace the whole economic and social life of the village and not a part of it. Thus the multi-purpose society will not only supply credit but will also undertake such other activities as marketing, better farming and better living etc. The membership will be as wide as possible and include every inhabitant of the village. All the existing credit societies will be converted into multi-purpose societies and in such places where non-credit socie-

ties or no societies operate, multi-purpose societies will spring up through conversion or organisation. A scheme of co-operative marketing as stated above has already been launched and a large number of multi-purpose societies have come into being. With the help of over 200 supervisors recruited every year for five years, it is expected that the movement will cover 35,000 villages out of the total number of 1,05,640 villages in the province.

A scheme for the establishment of provincial co-operative bank is already under the consideration of Government. It is expected that the bank will shortly come into existence and will provide necessary short as well as long-term finance to banks and societies. Apart from the assistance which may be available from the Reserve Bank the Provincial Bank will be in a position to deal with commercial bodies and make available to the movement the additional funds which may be required. As a result of the debt legislation the money-lenders might deposit their surpluses in the societies where they will be sure of a reasonable rate of interest on them instead of keeping them idle or investing them in less remunerative concerns. If it happens—as it should—the co-operative societies will have funds enough at their disposal to meet any new demands.

THE EXISTING STATE OF THE CO-OPERATIVE MOVEMENT IN THE CENTRAL PROVINCES AND BERAR

BY

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It is nearly 35 years that the Co-operative Movement has been in existence in this province and it has passed through several vicissitudes before reaching the present stage. It is based on the All India Co-operative Societies Act II of 1912, but efforts are being made to have a separate Act for the province.

2. The Movement in this province is confined mainly to credit. There are at present 4,084 primary credit societies of which 13 are crop loan societies with limited liability and the remaining are credit societies with unlimited liability. Of these, 3,414 are situated in the Central Provinces and the rest in Berar. The working of the crop loan societies is similar to that of other primary credit societies with the exception that the credit is restricted to the raising of crops and other incidental agricultural operations. The membership of all primary credit societies consists of 52,299, i.e., 45,983 in Central Provinces and 7,316 in Berar. The average number of members per society for the province as a whole comes to 13. The total loans outstanding against all the members amount to Rs. 81,26,882 (Rs. 38,07,519 in Central Provinces and Rs. 43,19,363 in Berar). As against this, the total agricultural indebtedness of the Province is nearly $36\frac{1}{2}$ crores. The average co-operative loan per member is Rs. 152 for the province as a whole, the average loan per member for (1) Central and (2) Berar being Rs. 83/- and 590- respectively. It may be mentioned that the loans of Rs. 81,26,882/- are exclusive of the loans of Rs. 61,00,750/- against members of societies under liquidation.

3. The total number of villages in Central Provinces and Berar is 42,821 and thus there is one Co-operative society for every 10 villages. But considering the fact that there are more than one society in certain villages, the proportion will be still less. Of the total population of 1,26,60,648 of British subjects in rural areas, only 4 per cent is being served by the co-operative credit movement. The total cash advances made to the members during the year 1937-38 amounted to Rs. 9,32,903 for various agricultural purposes. The average of cash loans advanced during the last 5 years comes to Rs. 7,05,135/- which is hardly one per cent of the loans of Rs. 7,21,32,086/- required by the agriculturists of the province every year. From the above figures it will be seen that the co-operative movement has been able to touch only a fringe of the problem of rural credit. But it is the only suitable agency for rural finance and it has brought about general reduction in the rates of interest. The rates of interest charged to members of societies range from 4 to 10 per cent per annum.

4. The total number of Central Banks which finance the primary credit societies is 35. Every headquarter of a District has got a Central Bank and there are Central Banks at several Taluk places as well. The total working capital of the Central Banks comes to Rs. 2,45,81,314/- as detailed below:—

	Rs.
1. Paid-up share capital	15,78,195
2. Reserve and other funds	53,46,402
3. Deposits from members and non-members	1,18,95,206
4. Loans from the Provincial Bank and other sources	57,61,511
Total ...	2,45,81,314

5. Out of 35 Banks in the province 20 maintained adequate fluid resource to serve as cover against deposits while 15 could not, having used their fluid resource in returning high-rated deposits,

6. Some Central Banks in the province advance loans to the agriculturists on the security of agricultural produce deposited in their own godowns or in those approved by them up to 75 per cent of its market value and the rate of interest on such advances is 6 per cent per annum.

7. There are 16 seed unions in the province which advance loans in kind for sowing purposes and charge 10 to 25 per cent per annum as 'Badhi' (or interest) for the period the loan is outstanding and the total amount of such loans during the year 1937-38 was 5,641/-.

8. The primary credit societies give only short-term or intermediary credit. As for long-term credit, the Primary Land-Mortgage Banks are being established since the year 1934 and their total number at present is 21. Their liability is limited and loans are granted on the security of unencumbered immovable property. By means of special legislation, the occupancy lands which are not ordinarily transferable are made so for the loans of these banks. The purposes of the loans are (1) repayment of old debts, (2) redemption of immovable property from mortgages or foreclosure, (3) agricultural improvements, and (4) purchase of land for consolidation of holdings. Interest on these loans is charged at $6\frac{1}{2}$ per cent and the loans are repayable in maximum 20 equated instalments.

9. The membership of these Banks as on the 30th June, 1938, consisted of 3,107 persons. The total loans outstanding against the members exceed 10 lacs. Though all the districts are not yet served by Land-Mortgage Banks, the programme is to provide each district with a Land-Mortgage Bank. The province has not yet got a separate Central Land-Mortgage Bank. The Provincial Bank, which is acting as such, has floated debentures to the extent of 8 lacs and the Provincial Government has guaranteed the principal and interest of these debentures up to a maximum amount of 50 lacs of rupees. The Provincial Government also gave a grant of Rs. 5,487 to some Land-Mortgage Banks to enable them to meet the working expenses in their initial stage.

10. The apex bank for the province is the Central Provinces and Berar Provincial Co-operative Bank with its

headquarters at Nagpur. Its working capital amounts to Rs. 1,64,98,915. The amount due from its affiliated Central Banks and societies on account of loans, cash credits and overdrafts comes to Rs. 37,22,434 of which 7,32,305 were due from the Banks and societies in the Central Provinces and Rs. 29,90,130 from those in Berar. The apex bank also finances the Housing Societies, Land Holders' Associations and other Co-operative institutions not affiliated to any Central Bank.

11. There are 50 Urban Societies of Clerks and other employees with a membership of 21,384 and a working capital of Rs. 15,72,657. The loan outstanding against their members comes to Rs. 13,37,734.

12. Non-agricultural credit societies with unlimited liability number 45 containing 672 members. Their working capital amounts to Rs. 50.106. The members are generally weavers, metal workers, shoemakers and sweepers, etc.

13. One urban bank called the Peoples' Urban Bank was organised at Amraoti last year. It finances small traders and businessmen and it undertakes inland exchange and other banking business.

14. There are 89 non-agricultural societies for purposes other than credit 18 of which are for purchase and sale, 2 dairies, 10 industrial associations, 17 housing societies, 14 thrift societies, 5 adult education societies, 4 compulsory education societies, 9 better living societies, 2 village development societies, 2 cattle breeding societies and general purposes societies.

15. The Telinkheri dairy at Nagpur which is managed by the Agricultural Department is flourishing. The other registered last year at Drug has also made a good start. Their membership and working capital are 33 and Rs. 16,995. During the last year the sale of goods amounted to Rs. 30,283 and they made a profit of Rs. 870.

16. The 10 industrial associations include the Central Provinces and Berar Weavers' Co-operative Society, Nagpur, which has got a grant from Government of India for the development of handloom industry. It has 349 members and a working capital of Rs. 14,049 including the Govern-

ment loan of Rs. 10,490. It worked at a profit of Rs. 1,472 last year.

17. The total amount of the Reserve Fund of the Movement as a whole is Rs. 71,55,963. Of this, a sum of Rs. 34,55,751 is invested in Government Securities and Post Office Cash Certificates and the balance of Rs. 37,00,212 is in the working capital of the societies. The value of this policy of investing a substantial portion of the Reserve Fund outside the movement so as to be readily available in a fluid form is now being appreciated when the movement is in need of immediate financial accommodation.

18. Till last year the societies in this Province were mainly for the provision of cheap credit as will be evident from the fact that out of the total number of 4,408 co-operative societies of all types, as many as 4084 are credit societies and the societies for purposes other than credit were single-purpose societies, that is to say, they catered to one particular need of their members, e.g., supply of pure seed, improved implements, supply of other necessities of life, marketing of produce, improvement of agriculture, cattle-breeding, reforming social customs, education, etc. But in such single-purpose societies, there is waste of energy and effort and they have not been able to achieve the desired aim. The idea of multi-purpose society which should cater to all the economic needs of the rural population was first mooted by the Reserve Bank of India in its bulletins No. I and II published in the year 1937. The Provincial Government approved of the idea and sanctioned a scheme of establishing 10 multi-purpose societies in the Province, at a total cost of Rs. 5,600. At present there are 8 multi-purpose societies in the Province, with limited liability, having a total membership of 352 persons. These societies are not restricted to agriculturists alone but are open to all the residents of the village or villages situate within a radius of 5 miles. The members can meet any or all their requirements by joining the society.

19. These societies have only made a beginning and their activities for the present consist of opening small grocery shops which stock articles of daily use, e.g., salt, kerosene oil, chillies, jaggery, etc., and arrange to market the

produce of the members. Out of the Government grant of Rs. 5,600, Rs. 2,000 are reserved for the construction of godowns for stocking the produce of the members.

20. The duty of education and supervision of the Primary Societies had devolved upon the Central Banks from the very beginning of the movement and the field staff was controlled by the Central Provinces and Berar Co-operative Federation. According to the recommendation of the Sub-Committee appointed by the Federation, finance was separated from education and supervision in the year 1929. The Primary Societies affiliated to a Central Bank were divided into small groups of about 40 to 50 societies each entrusted to a Group Officer for intensive education and close supervision. He is given an Assistant to help him in his work. These Group Officers and their Assistants are controlled by a Local Education and Supervision Committee which acts as an agent of the Central Board which is the chief executive body of the Institute to which the Central Bank is affiliated. There are five Divisional Co-operative Institutes serving the four revenue divisions of the Province to control the whole field staff and carry on education and supervision. They receive annual grant from the Provincial Government. The Grant for the year 1939-40 amounted to Rs. 29,000. The Government of India made a grant of Rs. 48,450 in 1935-36 for the training and education of the members of primary societies and the co-operative staff and a scheme was chalked out by the Provincial Government for the utilisation of the grant. The scheme came into force on 1st November, 1935, and will continue for $5\frac{1}{2}$ years. It is being worked according to the programme for the last 3 years. The education staff consists of 1 Educational Inspector and 3 Assistant Educational Inspectors. The first half of each calendar year is devoted to the training of members of primary societies for which classes are held at convenient centres in the rural areas and, during the second half, the training classes for the staff of the different co-operative institutions in the province and the Department are held.

21. The Co-operative Movement in the Province as a whole and in Berar in particular is passing through very

critical times, as a result of successive crop failures, for the last 10 years, slump in prices of agricultural commodities and unprecedented fall in land values. All these factors have contributed to the accumulation of heavy overdues, which are 75 per cent of the total dues in Central Provinces and 98 per cent in Berar. The percentage of bad and doubtful debts is also on the increase. Most of these debts are being recovered through coercive processes, *i.e.*, by award or liquidation proceedings. There are 1,301 societies in which loans amounting to Rs. 61,00,750 are involved. Besides, Rs. 35,12,576 are covered by awards mainly against individual members of primary societies. Thus the total amount under coercion is 96 lakhs. One peculiar feature of the situation is the existence of big borrowers, *i.e.*, persons owing Rs. 1,000 or more who have absorbed nearly 48 per cent of the loans of the primary societies.

22. Excepting the Banks in Chhattisgarh and a few in the Nagpur Division, the condition of the Banks in Central Provinces is unsatisfactory. Their work has come to a stand-still, while the Banks in Berar have become a source of grave anxiety and the Provincial Government has appointed a Committee called the Berar Co-operative Committee to enquire into the condition of the Co-operative movement in Berar and make recommendation for reviving and rehabilitating it. The Committee has already submitted its report to the Government whose decision is awaited. The Berar Banks are faced with two problems, *viz.*, financial accommodation and land management. The assets of the Banks have become frozen as they have acquired against their will 57,000 acres of land and consequently have no funds to return the deposits.

23. As against the dark background of Berar, there is a bright picture of the movement in the Chhattisgarh Division where new societies including non-credit and non-agricultural are being organised. Fresh financing, cent-per-cent recoveries, absence of overdues, non-existence of coercion, absence of bad and doubtful debts, genuine interest by the honorary workers are the main features of the present state of co-operation in this tract. Co-operation

here is a real live agency of rural credit while the reverse holds good in the case of other Banks specially those in Berar. On account of coercive measures adopted for the recovery of co-operative dues, there is a feeling of sullen resentment among members of societies in a major part of the Province. Those who had joined and directed the movement in the good old days prior to the depression are getting somewhat tired of the continuous tale of coercion, failure and crisis and are gradually withdrawing themselves from the movement. The movement has lost all charm for them when they find that their association with the movement for over 20 years has not enabled the indebted members to be free from debt.

CO-OPERATION IN THE NORTH-WEST FRONTIER PROVINCE

BY

M. R. BHIDE Esqr., I.C.S.

The co-operative movement was introduced in this Province in 1925 by Government with a view to help persons of limited means to improve their economic condition. Like most other parts of India, this is primarily an agricultural Province and the movement was, therefore, primarily concerned with the formation of societies among agriculturists. The main problem that existed in the N.-W.F.P. as elsewhere was of rural indebtedness and therefore agricultural credit societies were given our first attention. At the end of July 1938 there were 753 co-operative societies with a membership of 28,643 and a working capital of Rs. 26·86 lakhs.

Out of these, 660 were agricultural credit societies with a membership of 16,049 and a working capital of Rs. 12·24 lakhs. These societies encourage thrift among members in various ways and also supply credit to the members on reasonable terms. Credit is being largely restricted to agricultural purposes such as seed, bullocks, ploughs, etc. In the year 1937-38 Rs. 2·46 lakhs were advanced to members. Recoveries were Rs. 1·87 lakhs in principal and 85 lakh in interest. The total demand from members was Rs. 3·23 lakhs in principal and Rs. 2·87 lakhs in interest. It is obvious that recoveries are poor as compared to the amount due for repayment. The main reasons for this are a comparatively bad agricultural year, low prices and disturbed conditions in parts of the Province. The most common lending rate is $12\frac{1}{2}$ per cent, but a certain number of societies allow a rebate of $3\frac{1}{8}$ per cent to punctual repayers as an encouragement to prompt repayment.

There are 3 Central Banks in the Province with a membership of 650 (individuals and societies) and a work-

ing capital of 10 28 lakhs. Their owned funds are Rs. 1 44 lakhs while deposits are 7·39 lakhs. The Central Banks have also borrowed from the Provincial Bank to the extent of 1·46 lakhs. With increased confidence of the public these banks will be able to work entirely on their own funds and local deposits. During the year 1937-38 they lent Rs. 1·89 lakhs to affiliated societies. Repayments to the Central Banks were on the whole fair. The Hazara Central Bank showed a marked improvement in recoveries while the bank at Dera Ismail Khan showed a large drop. This drop was primarily due to the disturbed conditions in the southern parts of the Province. Reserves against bad and doubtful debts are being built up and the 2 banks at Mardan and Dera Ismail Khan already have Bad & Doubtful Debts Fund above the standard laid down by the department. They are also creating a separate reserve against the interest in arrears from D class, under liquidation and other societies. When the interest in arrears is realized it will be taken to the Profit and Loss statement and appropriated as profit. In future only interest actually realized can be taken to the Profit and Loss statement.

The advantages of consolidation of holdings need no repetition. The notable success of this work in the Punjab encouraged the department to start this work in this Province also. The number of consolidation of holdings societies on 31st July, 1938, was 30 with a membership of 8,409. During the year work was in progress in 16 villages and 4,556 acres of land in 6,159 fields were consolidated into 1,801 blocks. The average size of a block increased from 6·5 kanals to 22·8 kanals. As a result of consolidation 12 new wells were sunk and 15 old ones repaired while 853 kanals of land was brought under cultivation; 100 kanals of barani land was also brought under irrigation. This movement is taking root and becoming popular, but the progress is still not as much as one would like it to be. Unlike the Punjab the villagers do not contribute even partially towards the cost of consolidation. The time has perhaps not yet arrived when such contributions should be levied, but it is hoped that the time is not very far.

The marketing of agricultural produce on co-operative lines has not been taken up on a large scale, but the Eggs Grading and Sale Association and the Sheikh Mohammadi Grape Sale Society have done increased business during the last year. 42.55 lakhs of eggs worth Rs. 1.84 lakhs were sold during the year. The Association now owns its grading machine. Branches at suitable centres are being opened and it is hoped to expand this business a good deal. The grape sale society with 21 members marketed 550 maunds of grapes during the year. It is also expected to increase its business next year.

There are 13 non-agricultural credit societies, 27 Thrift and Savings and 15 Better Living Societies. The Credit Societies show a fall in recoveries from 78 per cent to 61.6 per cent. There is also a fall in fresh loans. The Civil Employees Society has large owned funds and is doing well. The Army Societies continue to work well under the control and supervision of their Commanding Officers. There is also an excellent society among the sweepers in Kohat. It is working on its owned funds and is managed by its members. A House Building Society has been registered in Peshawar but has not yet started to finance its members. The Thrift Societies are mainly among teachers in schools and their working depends on the enthusiasm shown by the Headmasters of the schools concerned. Of the 15 Better Living Societies 2 are reported to be doing no work. There is as yet no spontaneous demand for these societies and it needs a good deal of propaganda and patience before this type of co-operative activity can be expected to prosper in the Province.

The co-operative movement in this Province is governed by the All-India Co-operative Societies Act 1912. The Chief Commissioner of the N.-W.F.P. has framed the necessary rules under this Act and in doing so the Punjab model has been followed very closely. There are 2 Assistant Registrars in charge of the 2 circles in the Province. Under them is the staff of Inspectors and Sub-Inspectors who are all paid by Government. The Registrar, Co-operative Societies, Punjab, is also Registrar for this Province. The Deputy Registrar, Co-operative Societies,

Rawalpindi, is in charge of N.-W.F.P. also. The question of a separate Registrar is under consideration of Government. The Registrar of the Punjab is also Registrar for N.-W.F.P. and Delhi and Adviser to Ajmer-Marwara. He is, therefore, unable to devote as much attention to N.-W.F.P. as required. The Province being a full-fledged one should have a separate Registrar of its own. The staff of Sub-Inspectors unlike the Punjab are paid by Government. Government charges a fee from the societies for their audit.

Co-operative Societies have the same exemptions from compulsory registration, court-fees and stamps as in the Punjab and other parts of India. Half of the money order commission is remitted on transactions between co-operative societies and their financing institutions in 3 districts of the Province. This concession, however, is only up to March 1942. As in the Punjab disputes between members and co-operative societies are decided by arbitration.

In spite of nearly 14 years' work, the movement has not lived up to its original expectation. Membership has gone up in the last 2 or 3 years, but the number of societies has not gone up to any appreciable extent. Actually there is a fall in membership in agricultural credit societies. This is probably due to the absence of dividends and the unsettled conditions in the southern parts of the Province.

Last year a survey of village and cottage industries was made by an Industrial Inspector from the Punjab. Government has, however, not arrived at any decision on his report. There is a fair amount of scope for organization of village and cottage industries on co-operative lines in this Province.

The co-operative method, it has been proved by the experience of the last so many years, can be of great help in the development of most types of human activity particularly in the economic, educational and moral field. In this country the co-operative movement was initiated by Government and for a long time to come the initiative will remain with Government. The question of rural indebtedness and rural credit cannot be tackled except on co-operative lines. The same can be said of the marketing of agricultural produce and the encouragement of cottage

industries. All this work should, therefore, be considered as a part of a general plan to improve the economic position of the village worker, agricultural or otherwise. The co-operative method can also be successfully used in education, particularly of adults and in the improvement of village life. The development of co-operation should, therefore, form an important part of any scheme of rural reconstruction.

Although it is true that not very much has been done in the Province, a beginning has been made and it is hoped that this Province with increased assistance and attention by Government will not lag behind the rest of India in the course of the next few years.

REVIEWS OF BOOKS

NATIONAL BANK FAILURES AND NON-FAILURES, by Horace Secrist.
The Principia Press, Bloomington, Indiana, U.S.A. 1938.
Pp. xix+309.

The reviewer recalls with pleasure that many years ago he made his first acquaintance with Statistics through a small book by Prof. Secrist. Since then he has read with pleasure several of the Professor's books such as "The Triumph of Mediocrity in Business," and "Banking Standards Under the Federal Reserve System." The present book is a similar statistical study.

Dr. Secrist describes his book as "An Autopsy and Diagnosis." The failure of a bank is its 'death.' That is preceded by certain symptoms, which have been diagnosed by him. He has, however, omitted to prescribe medicines, preferring to leave them to be arrived at by readers. He begins the concluding paragraph of the book with the sentence, "Bank failures are peculiarly an American Phenomenon—a disgrace." An Indian reader must recall with shame that the mortality of banks in India is also distressingly high, as is evident from the following statistics:—

BANK FAILURES AND NON-FAILURES IN INDIA

(*Source : Statistical Tables Relating to Banks in India 23rd Issue*)

Bank Failures			Banks reporting and doing business having paid-up capital and reserve			
Year	No of banks failing.	Paid-up capital (Rs 1,000)	of Rs 5 lakhs and over		between Rs. 1 and Rs. 5 lakhs.	
			No. of banks	Paid-up capital and reserve fund (Rs. 1,000)	No. of banks	Paid-up capital and reserve fund (Rs 1,000)
1927	16	3,11	29	11,08,05	48	1,22,20
1928	13	23,12	28	11,09,50	46	1,19,87
1929	11	8,19	33	11,53,51	45	1,15,02
1930	12	40,60	31	11,90,15	57	1,40,85
1931	18	15,06	34	12,08,44	54	1,27,72
1932	24	8,09	34	12,21,14	52	1,29,35
1933	26	3,00	34	12,33,52	55	1,30,71
1934	30	6,23	36	12,67,23	69	1,48,83
1935	51	65,96	38	13,19,85	67	1,50,34
1936	88	5,00	42	13,95,33	74	1,56,12

All banks do not report and banks having paid-up capital and reserve less than Rs. 1 lakh have not been shown in the above table, although failures are most common among such banks. But the figures above indicate that bank failures are an unhappy feature of Indian credit system.

A unique feature of the book is the study of failures in conjunction with non-failures, which are introduced as "controls" for the purpose of comparison. The author justly claims that "so far as is known, this is one of the few statistical studies of an economic phenomenon in which control groups are deliberately selected in terms of which to appraise the behaviour of others through time (p. 7)." Beyond these, no other figures are used. For instance, index numbers of prices have not been utilised in order to bring balance sheet figures for different years to a comparable basis, by making due allowance for variation in the purchasing power of money. Possibly there were difficulties in the compilation of a satisfactory cash balance standard index number for the purpose, as contemplated by Keynes in his "Treatise on Money." Whatever the reason might be, the fact remains that the bank balance sheet figures have been used by themselves throughout the book with considerable statistical ingenuity.

In the third chapter of the book, five separate items have been studied in the form of aggregates just as they are in the balance sheets of failing and non-failing banks, *viz.*, (1) total resources, (2) total deposits, (3) total loans and discounts, (4) total loans and discounts and other bonds, and (5) total capital funds, that is to say, the capital, the surplus and the undivided profits. A number of useful conclusions have been drawn from an intensive study of each one of these items. To give only one instance, the following four chief facts have been found with regard to total resources.

"First, Banks first to fail show declining resources earlier and to a greater degree than do those who survive them. The declines are latest and least for the banks which do not fail.

"Second. In periods of increasing resources, the percentage changes are largest for non-failing banks or for those, the failure date of which is longest deferred; whereas in periods of declining resources, the decreases are least for the banks which remain in operation or for those which continue to function longest.

"Third. In the behaviour-trends of their resources, failures are more like failures than they are like non-failures, and the nearer together the time of failure the greater the resemblance.

"Fourth. The patterns of behaviour-tendencies for the resources of the several bank categories and of their members

are independent of the location of the institutions, of their sizes, and of the precise method of analysis used to isolate them. This conclusion is statistically significant" (p. 11). Similar conclusions have been drawn with regard to the remaining four items. The validity of these as well as of others in the book rest on "the consistent and repetitive relationships found to hold between the several bank classes and their members" (p. 10).

In the fourth chapter of the book, the year-to-year changes in each of these five items have been separately studied for each failing and non-failing bank. For, as pointed out by the author, "changes in the aggregate . . . may result from relatively large changes in a few institutions, or from relatively small changes in many . . . Moreover, aggregates do not show the prevailing directions of change in the amounts of individual banks, nor indicate the precise periods in which they occur" (p. 85). The method adopted is to consider the number of increases in relation to the total number of changes, no change being also counted as an increase. The conclusions derived from the aggregates have thus been reinforced, the effect of individual studies being "to sharpen the outlines of the patterns and to make them less open to doubt" (p. 14).

In the next chapter four ratios or coefficients are studied for failing and non-failing banks, *viz.*, (1) ratios of total loans and discounts to total deposits, (2) ratios of total deposits to total resources, (3) ratios of total capital funds to total deposits, (4) ratios of total capital funds to total liabilities. It is abundantly made clear that the conventional ratio of total capital funds to total deposits of 10 per cent or the ratio of total deposits to total resources of 60 per cent referred to on page 9 is not sustainable in fact. The following comment is made by the author on page 270, with regard to the first ratio, after presenting a wealth of statistics: "A level of 20 per cent is double that conventionally assigned as 'safe' According to this criterion, the 'safest' banks are those first to fail, and the longer the banks continue to operate the less secure they appear to be." He goes on to explain this puzzle as follows:—"The fact is that during most if not all of the years beginning, say, with 1921, the banks which ultimately fail have more than sufficient capital funds to support their deposit liabilities. They are weak primarily because of insufficient deposits—the raw material out of which profits arise. 'Death' is due to relative under-nourishment—the banks failing first suffering most in this respect" (p. 270). On page 20, the author uses the characteristic expression, "deposit starvation" in this connection. In judging a ratio, we have to consider both the numerator and the denominator. "The behaviour-characteristics of ratios cannot be divorced from those of the data upon which they are based" (p. 15).

In the concluding chapter, (wrongly printed as Chapter IV on p. viii in the Table of Contents), the comparative year-to-year changes in the first three ratios or coefficients are studied in the same way as in Chapter IV and the conclusions given in a summary form.

The basis of this elaborate study is the annual balance sheets of the following National Banks obtained from the reports of the Comptroller of Currency of U. S. A.:—

(1) 741 distributed in all the twelve Federal Reserve Districts, of which 100 failed in 1925, 52 in 1929, 123 in 1930, 265 in 1931 and 201 in 1932.

(2) 111, which did not fail, 43 from the seventh and 68 in the Tenth Federal Reserve District, chosen from two parent groups, one of 252 in other Reserve Cities and another of 300 selected at random from the country as a whole, as explained in the author's "The Triumph of Mediocrity in Business." There are three governing conditions for failed banks: (1) they must be chartered in 1921 or before; (2) necessary balance sheet data must be available from 1921 to the year immediately prior to failure; (3) each bank must retain its identity throughout the periods to which the data relate.

There are two defects in this procedure, pointed out by the author himself on page 7. "In the first place, . . . balance sheets at best give only a cross-section picture of operating conditions at selected intervals [when 'window-dressing' is usually in vogue] . . . They do not reveal the types of transactions which culminate in the transactions there disclosed . . . In the second place, the study applies only to well-established national banks. It has nothing at all to say about state banks nor about those with national charters which were established after 1921."

Thus the results obtained, although so valuable, cannot be applied to the entire banking system of the U. S. A., not to speak of other countries such as India. The main interest of the book, therefore, lies in the statistical technique employed, which is made clear in 131 charts, 48 regular tables and numerous other "insert" tables. The industry and ingenuity displayed are indeed considerable. One wishes, however, that modern methods of analysis of variance had been utilised along with the classical methods. It is true that time series with mutually correlated items do not easily lend themselves to such analysis. But surely the ingenuity of a Secrist should have been able to overcome such difficulties.

H. SINHA.

INTERNATIONAL MONETARY ECONOMICS, by Michael Heilperin.
Longmans. 1939. Pp. 281. Price 15s. net.

This is a valuable book. There is nothing strikingly original in it, and yet it does render a service to students of monetary economics by going to the roots of certain fundamental concepts and by removing many misconceptions which have been responsible for much confusion of thought and muddle-headed action in the post-war period of world's monetary history.

In chapter I on the Notion of Monetary Internationalism, chapter II on the Place of Gold in the Monetary System, and chapters III and IV on Gold-Price Relationships, the author has attempted a searching examination of several well-known monetary doctrines such as the automatism of the international gold standard, inherent incompatibility between internal and external stability, and exact correlation between the size of gold stocks and prices, and has thereby cleared off not a little of the weedy overgrowth that has long covered the pathways of monetary theory and practice.

Chapter V similarly does the task of clarification in respect of various items such as movements of goods, movements of capital and movements of short-term funds that figure in international balance of payments, and chapter VI discusses the various causes of disequilibrium.

Chapters VII and VIII are largely occupied with an elucidation of some older and newer ideas regarding foreign exchange and a discussion of the relative merits of fixed and flexible parities. The author rejects, as many others have done before, the concept of purchasing power parity and consequently, also, dismisses the notions of over- and under-valuation of currency. "There is no *a priori* rate of exchange which can be considered as representing the normal or natural parity between the respective currencies, for there is no legitimate way of calculating such a rate on the basis of various economic data . . . From this it further follows that the test of a parity is in the way it operates. A parity is appropriate if the mechanism of adjusting balances of payments can function on its basis. It is not an appropriate one, if its maintenance involves price adjustments which are impracticable, or a 'crisis' of confidence, or both; in any of these cases the parity must be changed." (P. 140) This theory is certainly more scientific than Cassel's theory of purchasing power parity, because it is nearer to the basic structure of economic life. But, it is not quite a novel point of view. It was rather strongly emphasised by Keynes in his article on "The Future of the Foreign Exchanges" published in the Lloyd Bank Monthly, October, 1935, and re-

affirmed by the London Economist in clear and unambiguous terms in two articles on Monetary Policy in its issues of October 17 and 24, 1936. Nevertheless, coming as it does from one who is a Professor of International Studies at Geneva and whose intellectual kinship lies rather with Robbins, Gregory and Hayek than with Keynes, it is particularly significant. It shows that the author, in spite of his intellectual leanings to the contrary, is compelled by regard for basic realities of economic life to make a valuable concession to the demands of internal stability.

But, though there is this clear concession in favour of change of parity in case of major maladjustments, the problem of policy is not solved. For, as the author rightly remarks, "The choice of parity is a matter more of judgment than of reasoning; it is an art rather than a science, as is the case of very many items in the field of economic policy. The proof of the adequacy of a parity is to be found in its operation. (P. 141.) There is much wisdom in this passage. It reminds us of what Pigou has said on the far more fundamental issue of Socialism versus Capitalism: "In human affairs it is rarely possible to demonstrate absolutely—even though our criteria of 'good' be agreed—that one course of action is 'better' than another. The data are always imperfect. Nevertheless, having equipped ourselves with the relevant knowledge and technique, we must use these imperfect data as best we may, and take the plunge, and judge. There is no other way." (Socialism versus Capitalism, p. 197.)

It is somewhat curious that the author, while acknowledging the similarity of his views on this question of determination of parity in case of major maladjustments with those expressed in a recent article by Dr. J. W. Beyen, President of the Bank for International settlements at Basle, seems to have no knowledge of Keynes' article on the subject, quoted above, and it is particularly so because that article was one of a series contributed in the pages of the different issues of the Lloyd Bank Monthly in 1935 by distinguished representative of rival schools of thought such as Rist, Robbins, Henderson, and Brand.

Chapter IX gives an exposition of the characteristics of different currency systems and discusses the problem of gold reserves, and chapter X passes in review some of the problems raised by policies of economic nationalism, and particularly, the future of international standard, exchange control policy, and the functions of Exchange Equalisation Funds in relation to Monetary Nationalism and Monetary Internationalism.

In an Appendix called "Note on the use of Statistical Constructions, the author examines the validity of the statistical con-

cepts of Index Numbers of General Price Level, business activity, etc., which have played a big rôle in the study of monetary economics for many years now. He follows Hayek (Prices and Production, ch. I) in condemning the twin concepts of 'average price level' and 'value of money' both on statistical and logical grounds. There is much point in this criticism, which rightly suggests that the time has come when some at least of our statistical instruments of analysis should be thoroughly re-examined.

Though the book contains much valuable exposition and some penetrative criticism, it is not well planned. There is much repetition and overlapping. There are not a few instances where the author criticises views which have been long abandoned by leading economists. And, again, no inconsiderable space has been taken up with exposition of ideas which are quite familiar by now.

Despite these blemishes which need not be minimised, we may repeat that the book is a valuable one and should repay a careful study.

H. L. D.

JOINT-STOCK BANKING IN INDIA, by D. S. Savkar, B.A. (Hons.), M.Com. Published by The Popular Book Depot, Bombay. Price Rs. 3-8-0. Pp. 256.

The development of joint-stock banking in India had not at all been commensurate with the size and the credit requirements of the country. Till the establishment of the Reserve Bank of India, the Indian banking system was organised in disorganisation. Recently, however, after the publication of the Report of the Central Banking Enquiry Committee and the Provincial Banking Enquiry Committees, the public has evinced a good deal of intelligent interest and has come to realise rightly that the industrial renaissance of India or any scheme of national economic planning cannot be achieved without the organisation of a well-developed banking system. Finance is the life-blood of industry and commerce and the organisation of a suitable financial machinery depends on a sound and well-knit banking system. The publication of this volume, therefore, with a substantial help from the Bombay University is most opportune.

The learned author has discussed in a very lucid manner the growth, organisation and reform of joint-stock banking in India. The book has been divided into three parts. Part I describes in five chapters, the history and growth of Indian banking with all its branches in detail. All these chapters are replete with very interesting and up-to-date statistics which show the pains the

author has taken in preparing his thesis. In chapters IV and V he describes very clearly the various causes of Bank failures in India (1913—18) and (1926—34) and discusses the effect of the War on Indian banking.

In Part II, in the next five chapters, the organisation of joint-stock banks, their functions and subsidiary services, Balance Sheets, their place in and relationship with the Indian Money Market and their part in the financing of agriculture and industry have been discussed in detail. This is followed in chapters XI and XII by a brilliant analysis of the defects of joint-stock banking in India and useful suggestions have been made to remedy those defects.

Throughout the book Prof. Savkar displays a masterly grasp of facts and figures and states his arguments with admirable lucidity and freshness of outlook, and presents his thesis with some degree of originality. He has drawn freely from the blue books and other authoritative sources on Indian Banking and its various branches. The book will prove very useful to students as well as to the general public interested in the growth, organisation and improvement of Indian joint-stock banking. Its utility has been very much enhanced by copious and up-to-date statistics.

KALKA PRASAD BHATNAGAR.

RESEARCH AND STATISTICAL METHODOLOGY BOOKS AND REVIEW, 1933—1938. Edited by Oscar Krisen Buros. Rutgers University Press. 1938.

This important publication gives us excerpts from the critical reviews of all publications on Research and Statistical Methodology in such fields as agriculture, economics, business, education, engineering, history, psychology and vital statistics. The books brought under evaluation include works published in Belgium, Canada, China, England, Holland, India, Scotland, South Africa, Sweden and the United States.

The book covers the period 1933 to 1938 and thus makes available to us informations regarding the most recent and up-to-date works on methodology. The purpose of the book is to enable students and teachers to select proper books for reference and study—a task that was rendered almost impossible by the fact that critical reviews of books did not all appear in one or a few journals.

In the last few years, as Professor Hotelling said in 1935, "a revolution has taken place in the theory of statistics." We have to-day new statistical methods which, though better than the old in every respect, have not been universally incorporated in the teaching of statistics and obsolete methods continue to be taught and to appear in the text-books. It is hoped that the proper use of this book will enable us to bring about a desirable change in the teaching of statistics.

J. K. MEHTA.

AGRICULTURAL MARKETING ADVISER'S REPORT FOR THE YEAR
ENDING 31ST DECEMBER, 1938.

The results of grading stations showed that producers will secure enhanced prices for graded produce, sometimes by over 50 per cent, says the Agricultural Marketing Adviser to the Government of India in his report for 1938, published to-day.

The report states that by the end of 1938, 60 grading stations had been started for eggs, fruits, ghee, hides, flour, and tobacco by the Central Marketing Staff, with the help of the local staffs and 40 certificates of authorisation were issued to individual packers of AGMARK products under the Agricultural Produce (Grading and Marking) Act. Many of these stations are run by producers who reap a direct benefit besides an appreciation in prices. The standardisation of contract terms giving a better price for improved quality, progressed considerably by trade conferences during the year, when terms for wheat, linseed and groundnuts were formulated.

Regulating Middleman's Charges.

To regulate the market charges which at times amounted to a high proportion of the producers' price, measures were taken in hand for legislation in the Punjab, United Provinces, Bihar, Bengal, North-West Frontier Province and Sind. Bombay is considering the extension of Cotton Markets Act to cover all products, and Madras the extension of the existing Commercial Crops Markets Act. Marketing legislation has also progressed during the year in the States like Hyderabad, Baroda, Travancore, Gwalior, Kashmir, Mysore, Patiala and Porbandar.

In the standardisation of weights investigations showed that, in spite of wide variations, the cardinal weights tola, seer and maund were largely similar throughout the whole of India. Standardisation of these weights was the object of legislation in the Central Legislature,

A Market New Service giving day-to-day position of supplies and prices has been instituted to bring producers into close personal touch with the markets. The local marketing staffs have been able to secure over 100 reduced freight rates on 27 graded commodities, in seven Provinces. This is a direct way of reducing the cost of distribution.

More Commodities Surveyed.

Surveys relating to barley, gram, maize, rape seed, mustard seed and toria, mangoes, ghee and butter, wool and hair, sheep and goats, apples and other pome fruits, oranges and other citrus fruits, fish and cashewnuts, were continued. The local surveys for milk, cattle, coffee, rice, groundnuts, bananas, hides and skins, co-operative marketing, potatoes, coconuts and markets and fairs have been more or less completed.

Apart from the regular surveys, special surveys for lac, sugar, coffee and jute are in progress.

Realising the importance of the development work, certain provincial Governments increased their marketing staff by one or more officers, while others are contemplating similar action. Two more states—Gwalior and Bahawalpur—appointed full-time marketing officers who have started work after preliminary training under the central staff. An officer of the Animal Husbandry Department was deputed by the Jodhpur State for training in marketing survey work.

The report deals with the various conferences held during the year and gives the reports from Senior Marketing Officers and contains numerous appendices.

B. G. B.

AN ESSAY ON INDIA'S NATURAL INCOME, 1925—29, by V. K. R. V. Rao (George Allen & Unwin). Pp 172. Price 6s.

The appearance of this book is welcomed at this time, when the Provincial Congress Governments are faced with the pressing necessity of tapping every possible source of income. A perusal of this book convinces the reader that the poverty of India is extreme indeed. The first estimate was made by Dadabhai Naoroji and the latest is that of the present author. According to Dr. Rao, per capita income is Rs. 77 9. Assuming a family to contain 5 members, the income per family comes to Rs. 390 per year or a little over one rupee per day.

The book will be found useful by students of statistics.

L. C. TANDON.

STUDIES AND REPORTS ON STATISTICAL METHODS. League of Nations, Geneva. 1938.

No. 1. Statistics of the Gainfully Occupied Population.—This booklet does not give us the actual figures of the gainfully occupied population. It only concerns itself with the question of defining the terms gainfully employed and establishment. It suggests, further, the plan that should be followed in collecting statistics of employment. The committee responsible for this report hopes that the “council will decide to communicate the annexed programme to all the parties to the International Convention relating to Economic Statistics and to all other Governments of States Members of the League of Nations and of non-member States and invite them to carry it out at their next census of population.”

No. 2. Minimum List of Commodities for International Trade Statistics.—This publication gives the minimum list of commodities for International Trade Statistics. The purpose of the list, giving also the classification of commodities by stages of production and use, is to permit of the trade statistics of one country being readily compared with those of others.

No. 3. Timber Statistics.—This report indicates the methods that should be adopted in order to collect statistics of timber production and consumption. As timber is an important basic commodity that enters into international trade it is necessary that statistics relating to its production and consumption should be made available.

No. 4. Statistics Relating to Capital Formation.—This publication takes up the very important and difficult question of capital formation. The problems that come up for investigation are so complicated that the authors have confined themselves in their report to the mere question of definition and appropriate procedure. One fundamental difficulty in this connection is due to the fact that the monetary terms saving, capital and investment are not concepts that correspond to statistical or physical units in terms of which they can be measured. In the first part the process of capital formation is described and illustrated by a diagram showing three cross-sections of capital formation. In the second part the terms saving and investment are defined and a method of measuring them is suggested. In defining these terms the consideration of practical utility is kept in mind. In the third part the conclusions are carefully stated. The opening paragraph indicates the nature of the conclusions: “The above statements on the possibilities of measuring the various aspects of the problem of capital formation have shown the complexity of the task, which

is not concerned with financial statistics alone. Indeed, to cover the whole field, it would be necessary to prepare recommendations for the following branches of economic and financial statistics."

J. K. MEHTA.

MATHEMATICAL ANALYSIS FOR ECONOMISTS, by Mr. R. G. D. Allen, London School of Economics. Published by Messrs Macmillan and Co., Limited, London. Pp. 548+xv. Price 31s. 6d.

The use of mathematical methods in treating economic problems is increasing. This is evident from various articles published in leading foreign journals. Many readers find it difficult to follow the discussions in these papers on account of the lack of the knowledge of mathematical methods. The book under review is primarily written for those teachers and students of Economics who feel the need of acquiring sufficient mathematical equipment to follow modern development in the theory of Economics.

The book contains 20 chapters mostly dealing with functions both exponential and logarithmic, derivatives, differentials and differentiation, maximum and minimum values, etc. In various chapters economic problems of indifference curves for consumers goods, the elasticity of demand, monopoly from dynamic point of view, duopoly, compound interest, capital values, the principle of substitution, joint production, the relation between average and marginal costs, variation of demand for factors of production, etc., have been fully discussed with numerous diagrams and illustrative examples. Exercises have been given at the end of each chapter, many of these have been drawn from the economic field.

We strongly recommend this book to all the teachers and students of Economics.

D. S. D.

STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS FOR 1938-39. Available from Indian Branch Office of the Secretariat of the League of Nations, 8, Curzon Road, New Delhi. Pp. 330. Price 10 shillings or \$2 50.

The Year-book provides a large and very varied amount of statistical information on population, unemployment, production and consumption, Transport and Trade, Currency, Exchange rates, Prices and Public Finance of most of the countries of the world,

The information available in this book is likely to be of great use to industrialists, businessmen, members of legislative bodies and students of Economics.

The present edition is in some respects an improvement on previous editions. It provides, particularly, mortality rates according to age and rates of reproduction. This information throws some light on the trend of population in each country.

The Year-book shows that the expenditure on armaments is increasing in most of the countries. In United Kingdom it amounts to nearly 44% of the total expenditure. But the Year-book does not give us any information about the strength of the army, navy and the air force of each country. We hope this useful information will also be included in the subsequent edition of the Year-book.

—DAYA SHANKAR DUBEY.

THE ECONOMIC BASIS OF CLASS CONFLICT AND OTHER ESSAYS IN
POLITICAL ECONOMY, by Lionel Robbins. Macmillans. 1939.
Pp. 277. Price 6/-

This book is a collection of papers written during the last twelve years. Most of them deal with subjects which the general reader will find most interesting. The language used is simple and the exposition of economic theories is divested of its usual intricacies as far as possible. Judging from the contents of most of the chapters it appears that the book should prove most valuable to non-economists—the laymen and the politicians. For, the questions that are taken up here and illuminated by the light of careful reasoning are precisely those on which public opinion is hopelessly and perhaps dangerously misguided. But the utility of the book is not confined strictly to this class of readers only. There is much in the book, especially in chapters such as those on Economics of Restrictionism and Economics of Territorial Sovereignty that will be found instructive by many students of economics. Apart from this, however, there is little else in the book that will particularly interest a full-fledged economist. There is very little in it that will admit of two opinions among them.

The logic of the book is so convincing and the treatment so systematic that the reviewer feels there is hardly anything that would admit of any significant comment or serious criticism. There is, however, a possibility of one's differing from the author on the matter of emphasis. Thus, when he says, for instance,

that it is only in a few cases that the policy of restriction has definite advantages and that even then the counter-disadvantages are greater, one may agree with the qualitative rather than the quantitative aspect of the conclusion. (The present reviewer, however, agrees with both the aspects.)

In some cases perhaps the treatment could have been cut down with advantage. Thus, in the chapter on The Inevitability of Monopoly, it appears that the discussion of what a commodity should mean is needless, it is unnecessary for an economist and puzzling to a layman.

The book contains some fine passages which are so full of wisdom and beauty that no reviewer who wishes to do his duty well should altogether ignore them. The temptation to quote one passage from the chapter on the Economics of Import Boards is too great to be overcome. It is:

“Now, whatever the merits of particular proposals, one thing is perfectly clear. The organisation of the world on national socialist or national liberal lines is inimical to internationalism of all kinds. A world in which the movement of goods, of money and of people is restrained and impeded by national organization, a world in which the national states separately organize economic processes which are essentially national, is a world in which the achievement of the international ideal, whether on socialist or liberal lines, is more distant even than it is at present. It is mere self-deception to believe that such developments are an ‘inevitable stage’ in the right line of evolution, just as it is self-deception to urge that it is right to arm further in order to facilitate disarmament, to erect tariffs in order to promote free trade, and so on. These are not cases of *reculer pour mieux sauter*. They are cases of recoiling to jump in the opposite direction. Nationalism and internationalism in the field of economic organization are inimical to each other. Whatever leads to the one, must inevitably lead away from the other.”

It is when we come to passages like this that our speed slackens and we wish to read and re-read them to make sure that nothing that is of value escapes our mind.

J. K. MEHTA

REVIEW OF WORLD TRADE, 1938. League of Nations, Geneva. 1939.

As usual this publication contains much useful and interesting material. We find, for instance, an analysis in this review of the contraction of world trade in 1938. There was a decline in value of 13% in gold of which about 8% was due to a fall in quantum. The changes in the conditions of trade appear to have been determined chiefly by variations in the United States demand for goods, in particular raw materials. She imported 35% less in value than in the previous year. This fall in demand would have threatened a world-wide depression but for the armament policies which contributed to sustain business activities and thus stimulate international trade.

Sufficient importance is given in this volume to the question of disintegration of world economy which has followed the formation of economic groups of countries. We find, for example, that Japan has increased her trade with countries of the yen bloc and Germany hers with the exchange control countries of South-Eastern Europe and Latin-America. The United Kingdom likewise has increased her trade with countries of the sterling block.

The reference tables, giving indices of the prices and quantum of world trade as also the tables of imports and exports of particular countries will be found to be of particular value.

J. K. MEHTA.

THE MINIMUM WAGE AN INTERNATIONAL SURVEY. League of Nations, Geneva. 1939. Price 5s.

This volume prepared by the International Labour Office gives the development and present state of minimum wage legislation in the nine countries Australia, Belgium, Czechoslovakia, France, Great Britain, Ireland, New Zealand, Peru and the United States. In some cases certain major problems encountered and the results achieved by the policy of wage legislation are also indicated.

As economists in search of the root causes of the evils of the modern system we may not believe in minimum wage legislation, but so long as we are unable to strike the evils at the root we have to satisfy ourselves with such a superficial measure. Social reformers and practical economists of India shall find much useful information in this publication.

J. K. MEHTA.

STATISTICAL TESTING OF BUSINESS-CYCLE THEORIES. I. A METHOD AND ITS APPLICATION TO INVESTMENT ACTIVITY, by J. Tinbergen. League of Nations, Geneva. 1939.

This publication is a sequel to Professor Von Haberler's scholarly work "Prosperity and Depression."

Whereas that work examined the various prevailing theories concerning the nature of Trade Cycles with a view to ascertaining the points of similarity and difference between them, this work explains the method which it is proposed to employ for the statistical testing of trade-cycle theories. Professor Tinbergen's book is the first instalment of a series of publications the work in connection with which has already begun.

Professor Tinbergen explains the multiple correlation analysis and applies it to fluctuations in total investment, residential buildings and net investment in railway rolling stock.

The book will be found very interesting by students of the Trade Cycle but it will lend itself to easy reading by only those who have acquired a certain degree of proficiency in mathematical statistics.

J. K. MEHTA.

COMMERCIAL AND CENTRAL BANKS. League of Nations, Geneva. 1939.

This huge publication covering 202 pages and containing hundreds of tables accompanied by brief notes of explanation is the second of the two volumes in the series Money and Banking, 1938-39. It contains tables giving monthly or yearly national monetary and banking statistics, pertaining to 43 countries of the world.

The statistics relating to India are interesting inasmuch as they enable us to study almost at one glance the conditions as they prevailed in 1938. Statistics relating to the Reserve Bank of India, in the Issue and the Banking departments, those relating to the Scheduled Banks, and notes on Indigenous Bankers, Agricultural Credit, establishment of an Industrial Credit Corporation, proposals for separating Ceylon Currency from the Indian Rupee and the Rate of Interest are, though brief, quite interesting.

J. K. MEHTA.

PREVENTION OF INTERNATIONAL DOUBLE TAXATION AND FISCAL EVASION—TWO DECADES OF PROGRESS UNDER THE LEAGUE OF NATIONS, by Mitchell B. Carroll. League of Nations, Geneva. Price 1/6.

This small book of 53 pages is full of information relating to problems of Double Taxation. It begins with the statement of the problem of double taxation and then takes up the League's work on Double Taxation, the report of Economists, 1923, the report of Technical Experts, 1925, the report of Enlarged Committee of Technical Experts, 1927, the work of the General Meeting of Government Experts, 1928, and the work of Fiscal Committee since 1929. Then follows the conclusion. The book ends with two Annexes the second of which giving synoptical table of the general agreements conveys the ideas of the extent to which agreements have been made. I will take the liberty of quoting a passage from the Conclusion as it indicates the importance of the work that the League has been able to do.

“The pioneer work of the technicians at Geneva has been reflected in the practical accommodation of existing tax systems to these principles. Even during the depths of the world economic depression, in 1930 to 1935, over fifteen general double-taxation agreements were concluded which contain many of the suggestions formulated at Geneva. Altogether, about sixty such general arrangements have been made since the Peace Conference at Versailles, a large number of which are at present in force.”

J. K. MEHTA.

PARLIAMENTARY GOVERNMENT IN ENGLAND—A COMMENTARY, by Harold J. Laski. Published by George Allen and Unwin, Ltd., London. Pp. 435. Price 12s. 6d. net.

“Parliamentary Government in England” is not a text-book on the English Constitution. It is a penetrating and a challenging study of the working of the whole machinery of government in England and a discussion of the ultimate foundations on which all democratic government rests. It is the result of wide reading, long experience and constructive, purposeful thinking.

The main thesis of this remarkable book is that parliamentary government has been successful in England for the last two-and-a-half centuries on account of the general agreement in the country on what Lord Balfour had called “the foundations of society” and the consequent “mildews” of English party politics, to use Walter Bagehot's phrase. The great historic parties have been as if they were merely “the two wings” of a

single party—with no “qualitative” but only “quantitative” differences between them, as Professor Laski puts it. This is, however, not true of the two, present-day, bigger parties. The Labour Party has for its main object the substitution of the Socialist Economy in place of the capitalistic system and Professor Laski rightly points out that no one believes that this transformation can be brought about by means of parliamentary legislation through achieving Labour majority in the House of Commons as the Fabians had believed in the last quarter of the 19th century. Professor Laski’s conclusion is:— “The ability to find a new basis for unity then becomes the condition for the survival of parliamentary government.”

Recently various writers, particularly Mr. Ramsay Muir, Sir William Beveridge and Professor Keith, have made suggestions to remove the several defects noticed in the parliamentary machine as it exists in England—such as the helplessness of the private member in the House of Commons, the tremendous increase in the power of the bureaucracy, the disappearance of the moderate element from the Parliament. These proposals are carefully examined by Professor Laski but he is of opinion that changes such as the introduction of proportional representation and the consequent multiplication of parties, the appointment of men with special knowledge to cabinet posts, the creation of an Economic General Staff and the vesting of more powers in the Monarch particularly those of acting as “the guardian of the constitution” apart from their inherent defects will not solve the fundamental problem, which is economic. The central problem of the generation is Capitalist *vs.* Socialist Economy—that is the real basis of the conflict between the Labour Party and the parties of the Right. So long as this conflict continues the Right will use every device to prevent the Labour Party from achieving victory at the polls and in case Labour succeeds in securing a majority in the Commons the parties of the Right will use their position in the House of Lords and their influence with the Monarch to prevent the Labour Party from carrying out its programme.

Professor Laski elaborates his argument with a wealth of illustration and with a masterly grasp over the detailed working of the various parts of the parliamentary machine. He makes valuable suggestions for improving the working of the machine but he insists that the solution of the economic problem is fundamental. The book deserves to be read widely and deeply pondered over, not only in England but also in this country, because we cannot expect to postpone very long facing the same problem—choice between Capitalism and Socialism.

GURMUKH Nihal Singh.

SOME INFLUENCES THAT MADE THE BRITISH ADMINISTRATIVE SYSTEM IN INDIA, by M. Ruthnaswamy, Luzac & Company. 1939. Pp. 660. Price Rs. 10.

This book, as the author puts it, "is the expanded and finished product of the lectures under the Sir William Meyer Endowment at the University of Madras in 1937." It deals with the history of the administrative development in British India. While attempting to describe the growth of various activities and departments of the Indian administration, the author, has chosen to classify them under four headings which he terms "influences" operating on the administrative system. These are Commerce, Army, Land Revenue and the Frontier. The last two chapters are devoted to tracing the effect of administration on the state and the social and political ideas.

The main thesis is to show how far "administration can shape the political life" of the people of India. He says: "The political gains and losses of India, the political virtues and defects of the people, the strength as well as the weakness of their political armour may, most of them, be laid at the door of the administration." Everyone will agree with this statement. During the last one hundred and fifty years, the very structure of Indian society has been affected, perhaps formed, by the British administrative system. But in whatever was done, the sole and the supreme consideration was the facility of administration, the advantage of the British Empire and the good of the services. Never did the good of the people or the progress of Indian society cross the mind of the British ruler. Everything grew up haphazardly, as the exigencies of the situation required. This objective method has been responsible for the destruction of the Indian system which was the product of a long evolution, and for the superimposition of an alien polity out of harmony with the genius of the Indian people. It is difficult, therefore, to subscribe to the author's encomium that "the British administrative system in India is one of the noblest structures whose records illuminate the annals of the art of administration."

In the first chapter the author traces the development of administrative system from the commercial framework of the East India Company. Both in the method as well as the general character of the government, the commercial origin is traceable. He has illustrated it by reference to the original titles of many government officers, the system of writing minutes, the monopoly system in taxation, the system of Boards, and the council government. "Not only the men, but the machine they had to work for the company was commercial in its origin." This chapter is rich in references and surveys in all its ramifications the administration of the Company. The author has justly emphasised the value of

‘writing’ and ‘record’ which was a special feature of the Indian government. It led to centralisation and delays. But its real importance lay in providing a check on the officers not directly within the ken of a remote supreme authority. He rightly observes that “this necessity to justify their activities by writing acted as a salutary check upon the natural propensity to absolutism of uncontrolled power.” Further the “*quieta non movere*” policy of the company in social matters and the disinclination to promote the material progress of the people were governed by its commercial origins. In the end the author appreciates the effects of the company’s administration and says that “it tried a memorable experiment in the government of man.”

The next chapter deals with the history and organisation of the army in India and the part which the army officers have played in the civil administration of the country. In his characteristic way, the author has traced, in all its details, the influence of the army on the government in India. Similarly the third chapter is devoted to the detailed examination of the land revenue system, the zamindari and ryotwari systems of land-settlement, and the machinery of district administration from the Collector down to the Patwari. The author has attempted to show the influence which this more important aspect of Indian administration had on the judicial, executive and other phases of the government. The Land Revenue System has had profound influence on the people of India. Perhaps it will not be wrong to say that the present social structure in the rural India is the product of the land revenue system; any attempt at the reconstruction of society must first be preceded by a thorough overhauling of the land system.

Chapter four traces the history of the frontier policy and its influence on general administration. While chapter five is devoted to the study of the various departments and activities of administration like police, public works, political, finance, posts and telegraphs, medical, forest, archaeological, census, and the organisation of the secretariat. In the last chapter have been traced the relations with the Indian States and the Theory of Paramountcy as well as the efforts of the government to remove such obstacles to freedom of the subject as slavery, *begar*, etc. Also the ameliorative activities like prevention of infanticide and sati, the growth of education, the civilising of the backward peoples, the freedom of the press, religious toleration have been discussed.

The work is a lucid and thorough history of the administrative system in British India. The author has drawn copiously from original sources such as government despatches, official minutes and reports, access to which is always difficult. It is a very creditable attempt in the history of Indian administration, a

subject which has so far scarcely found favour with Indian scholars. We are indebted to Mr. Ruthnaswamy for this first detailed analysis of the intricacies of Indian administration.

BISHESHWAR PRASAD.

INDIAN CURRENCY PROBLEMS IN THE LAST DECADE, by J. C. Sinha, Professor of Economics, Presidency College, Calcutta. Sir Kikabhai Premchand Readership Lectures, 1937. Published by the University of Delhi. 1938. Pp. 166.

Professor J. C. Sinha, one of our ablest monetary economists, is to be congratulated on the production of this volume, which contains his Kikabhai Premchand lectures delivered some time ago at Delhi. Being a master of the statistical technique, he has brought to bear upon the problems of Indian currency a wealth of statistical detail in a manner hitherto largely unattempted by Indian economists. One may or may not agree with the conclusions of Professor Sinha,—and the present reviewer has already criticised some of his views stated in identical terms by him (Professor Sinha) elsewhere, in the *Sankhya*,—but one cannot help feeling that he has made a valiant attempt for which the meed of praise must go to him. Indian currency questions, especially those connected with the ratio during the last decade or two, are apt to rouse heat and controversy, and it is often difficult even for the pure scientist to escape the consequences of *a priori* assumptions and arguments. In dealing with complex economic issues like the exchange ratio, the standard, the interactions of monetary manipulation and real events, it must be said that a severe theoretical training is likely to give a more useful preparation for grappling with practical calculations than a hazy general knowledge. In the present case, I do not suggest that that is exactly the case, but I wish Professor Sinha had spent more time in clarifying the theoretical issues before utilising the statistical material. It is to be hoped he will bend his undoubted ability and energy to this side and produce an even worthier dissertation in the near future.

It is impossible in a brief review to indicate the various aspects of the currency problem stated and discussed by the author. The central conclusion of the lectures may be stated in the words of the author: "It appears from the above analysis that the exchange rate was not put at an unduly high level by the Hilton-Young Commission. Their mistake lay in the fact that they stabilised the exchange when the time was not quite ripe for stabilisation." Stable equilibrium, according to the author, was established in the period 1927—29, and a large portion of the

book is devoted to the substantiation of this conclusion. For internal stability, equilibrium between costs and prices is, I think, correctly taken as the criterion, though as Myrdal and some of the Swedish writers have proved, costs-prices equilibrium is conceivable even at the bottom of a depression. However, in the statistical application of this test, the extremely questionable procedure adopted by Sir Henry Strackosh of regarding cost-of-living indices as representative of cost-of-production trends. The comparison of the Calcutta wholesale index and the Bombay cost-of-living index, where the latter itself is largely influenced in a causative manner by the former, and where the disparity between the two is just sufficient to make the whole procedure attractive and respectable, misleads the author into wrong conclusions. Other indices of internal stability are movements of prices *inter se*, and profit movements (measured rather illegitimately by the index number of the prices of $3\frac{1}{2}$ per cent Government paper). External equilibrium is examined in the light of gold movements, parity between short-term rates at home and abroad, and parity between domestic and foreign price levels of international goods. As I have extensively dealt with these criteria and Professor Sinha's applications in the *Sankhya*, I do not wish to repeat the observations here. The only point I wish to restate is that it is rather doubtful whether we can regard the 1927—29 period as unaffected by the ratio manipulations in 1925—27 and whether the 1927—29 period would have been more suitable for stabilisation.

As regards future monetary policy, Professor Sinha is of the opinion that "the only objective which currency authorities in India should have in view is exchange stability,"—a statement which is hardly likely to find favour with a majority of Indian and other economists. It is not of course necessary to throw the exchanges to the winds, but it is impossible to agree that internal stability of some kind cannot be attempted in a country like India which has an internal trade many times larger than its foreign trade. The author complains that there is no single price level which can be stabilised, but one wonders why he has given the go-by to his costs-prices stability, the criterion for internal equilibrium, and to the Calcutta index which was considered by him with approbation in this connection at the start. Apart from these central and undoubtedly controversial questions, there is much in this brilliant production of my friend, Professor Sinha, with which many will agree; and I hope, it will not be regarded that I am interested in fault-finding alone. As already stated the book is masterly production in several ways and, as the first scientific and statistical examination of these vexed questions, it is bound to evoke admiration.

B P. ADARKAR.

SHORT NOTICES AND COMMENTS BY THE MANAGING EDITOR

The Board of Economic Inquiry, Punjab. Publication No. 61, by Roshan Lal Anand, M.A.

The above publication gives an account of the Tanning Industry in the Punjab. We are told "Next to weaving, the tanning and leather working trades occupy the second place in importance in the industrial occupations of the peoples of the Punjab." From this report we get a more or less full idea of the present condition of the industry. The inquiry would appear to have been conducted with diligence and is thoroughly informative.

Publication No. 62, by Messrs Labh Singh, S. S., B.Sc. (Agri.), L.Ag., P.A.S., and Ajaib Singh, B.Sc. (Agri.), deals with family budgets of eleven cultivators in the Punjab for the year 1936-37. The present report is the fifth in the series which was first started in 1932-33. This series is complementary to the Farm Accounts series. In this series in the first year four tenant cultivators on the Risalewala Government Farm near Lyallpur were selected, and in the next year two more were added. In 1936-37, in addition to these families five others were included representing the Jullundur, Hoshiapur (two families), Amritsar, and Rohtak districts of the Punjab.

The inquiry keeps up its high standard of accuracy and wealth of detail.

In the July issue we had the occasion of referring in appreciative terms to the Hon'ble Dr. Kailash Nath Katju's scheme of Local Self-Government in the rural areas of the United Provinces. We took the opportunity then of drawing the attention of Dr. Katju to the need, so well recognised and allowed for in the scheme of the Hon'ble Mr. Mishra, of utilising to the fullest possible extent the existing administrative machinery before going in for anything new. We are glad to note that the United Provinces Government are

contemplating the amalgamation of the newly created cadre of the Rural Development Department with the existing cadres of the Agricultural and the Co-operative Departments in these Provinces. This way lies economy, true and genuine, without any loss of efficiency, maybe, with increased efficiency following in its wake.

We may further submit for the very serious consideration of the Hon'ble the Minister of Development the desirability of concentrating development programme in one or at the most two districts of the United Provinces. If one district is developed in all its aspects successfully we shall have gained a great deal of useful and practical experience and this would facilitate the work in other districts. By taking up one or two items in villages all over the Provinces the chances are of all effort and money being wasted without producing any tangible result. If on the other hand the total budget grant under the development head is applied on the all-round development of a district the results are likely to be remarkable. That is our view. Whether it is worth considering is for the Hon'ble Minister to determine.

The Association of the Depositors of the Co-operative Central Banks in Berar, Nagpur, have sent us all the relevant papers regarding the rehabilitation of Co-operative finance in Berar and have asked us to express our opinion on the same. After reading carefully the Government proposals and the criticisms of the same by the Association and its legal advisers we feel inclined to say that both the parties have not tried to approach the problem in a really far-seeing manner.

Technically the Government would appear to be correct in disclaiming all legal and ethical responsibility to the creditors of the Central Banks. But while doing so they seem to forget the disastrous consequences that are likely to follow from this attitude on their part. Government through its officers of the Co-operative Department have always played the part of *ma-bap* in the co-operative movement, and thus have succeeded in generating a general idea that behind the movement there is Government and therefore the funds

deposited with the Co-operative Banks are perfectly safe. That Government never definitely undertook any such liability is true. But that the idea was there and is there is equally true. We are happy to note that the Central Provinces Government have, under the force of circumstances, now definitely made this clear. We would have been still more happy if the Central Provinces Government had pushed this attitude to its logical, though bitter, end. To us it appears that the only logical attitude for them to adopt was to let the Banks and the societies go into liquidation and to let the various parties concerned suffer the consequences. But probably this they could not afford to do as ultimately this course would have meant ruination of the members of the Primary Societies in the rural areas. Hence the scheme devised by them. Looked at from the point of view of a disinterested person, the Government scheme is rather heavy on the depositors. We agree with the view taken about it by Mr. Subhedar that under the scheme the depositors alone are called upon to make a sacrifice to save the co-operative movement in Berar from going to utter rack and ruin. This to our mind is neither equitable nor calculated to advance the interests of the Co-operative movement in Berar.

Again the Government scheme fails to make any provision which shall continue to secure requisite financial support to the co-operative societies in the future. Some indication of what they propose to do to secure funds for the Central Co-operative Bank so that they may continue to finance the Primary Societies, that is to say, they may continue to function, should also have been given. The scheme as it is in the nature of a makeshift just to get round a difficult corner at the expense of the depositors; and has been conceived to keep the agricultural masses into good humour at the expense of the depositors of the Central Banks. It will have put to great misery the depositors and strengthened amongst the masses the already flourishing idea that to meet one's obligations is the height of folly and to make default is the greatest virtue.

Although the Congress Government in the Central Provinces as other Congress Governments in other Provinces

are not likely to pay any the least heed to what we may say, yet we feel it our duty to observe that this particular idea, if not checked in good time, is likely to create serious trouble for the Congress Government themselves in the future. When the monied classes will have been ruined the turn of the Congressmen will come to provide food for the ever hungry masses. It must be exhilarating now to see the agriculturist masses feeding at the carrion of the *sahukar* and so forth, but the day is not far off when those who are enjoying with grim smiles the death pangs of some of their fellow countrymen will have themselves to share the same fate at the hands of their admiring friends of today. The history of past revolutions is replete with such facts.

There is no doubt that the present depositors of the Central Banks in Berar are entitled to get back every pie of their deposits but the attitude they seem to have adopted though justified legally and ethically is not calculated to advance their own interests in the long run. With wholesale liquidation of the Co-operative Societies, Central and Primary, in Berar such a serious financial unsettlement is likely to take place that safe avenues of investment in the Province will have disappeared for many a year to come. The monied classes instead of being able to live on the income of their capital will have to live on the capital itself. The depositors should never allow themselves to forget this aspect of the case. In their own interest as also from the point of view of the province as a whole they should be ready to save the co-operative societies from utter annihilation and be prepared to make bearable and reasonable sacrifices.

Our own view in the matter is that the Central Provinces Government should intervene to save the co-operative movement in Berar. They should make it absolutely clear to the members of the Primary Societies that they will have to pay every pie of whatever they owe to their creditors. To enable the members of the Primary Societies to meet their obligations existing Primary Societies should be converted into multiple-purpose societies. Their existing debts should, after scaling them down with the full approval of the creditors, be consolidated into a basic debt to carry a reasonable rate of interest, and repayable in

annual instalments covering both principal and interest within a period of twenty years at the outside. This along with the land revenue should be made the first charge on the produce of the members of the Primary Societies. Thus the Central Banks will be assured full return of the money invested by them in the Primary Societies. To enable the Primary Societies to fulfil their obligations intensive agricultural development should be undertaken by the Government to create a margin of profitableness in agriculture. To ensure that that margin is not frittered away co-operative marketing of agricultural produce and co-operative supply of the necessities of agriculturists should also be undertaken simultaneously. Only by this bold and comprehensive move on the part of the Central Provinces Government can the credit of the agricultural masses in the Province be saved from utter ruination, and not by any half-hearted measures of bullying the depositors into this or that sacrifice of their legitimate dues.

Having thus assured the Central Banks of the safe return of their investments the Central Provinces Government should through the Provincial Bank advance to the Central Banks funds that would enable them to pay back their creditors their dues, and to carry on their operations in the future. While settling the claims of the present creditors of the Central Banks the Government may call upon them to make a voluntary sacrifice so that the burden on the Central financing organisations may be somewhat lightened. The extent of this sacrifice should be left to be determined by the sense of patriotism of the creditors themselves. In their own interest we are inclined to think they, the creditors, should be prepared to forgo fifteen to twenty per cent of their existing dues in principal plus interest.

If the above line of policy is followed it will have some sacrifice made all round and will have created a chastened mood in all concerned. After this will be time enough for the Government to declare in absolutely certain terms that they undertake no responsibility for the debts of the co-operative societies, that the societies are business concerns and that those who deal with them should do so at their own risk.

NOTE BY THE MANAGING EDITOR

With the July 1939 issue (No. 1 of Vol. XX) the Indian Journal of Economics is going to appear in a new garb which the Managing Editor hopes would better appeal to the aesthetic cum scientific sense of its readers. The Journal as it was, was founded in 1916 by Professor H. Stanley Jevons who was then the University Professor of Economics, in the Allahabad University. In those days, that is up to the year 1922-23, the Indian Journal of Economics like its compeer the Journal of Indian History was owned and financed by the University of Allahabad. Though both the Journals maintained a very high standard of scholarship, yet none of them was financially a success. Therefore, when the university was re-organised as a teaching university in 1922-23 it disowned both and refused to finance them. The Journal of Indian History migrated to the University of Madras, and the Indian Journal of Economics was adopted by the then members of the Economics and Commerce Departments, who entered into a gentleman's agreement to run it. If there was any profit, it was to be kept in a Reserve Fund but if there was to be any loss, it was to be shared by the gentlemen who had signed the agreement. The first four or five years were the crucial years. But at last the Journal turned the corner and became a paying concern.

With the return of prosperity, friends, new and old, also returned. The Indian Economic Association entered into an agreement by which the Journal became the organ of that Association, and the Allahabad University re-owned it. So that at present the Journal is the property of the Allahabad University and on its behalf is managed and run by the members of the Economics and the Commerce Departments of that University, who so to say constitute a standing Board of Management. By virtue of the existing agreement with the Indian Economic Association, the

Journal is their organ. All the members of the Indian Economic Association are entitled to receive a copy of the Journal free of charge. They pay to the Association rupees twelve per annum, while the Association pays to the Journal rupees 9 per member up to 125 of its members and beyond that at the rate of Rs. 8 per member. The subscription of the Journal to persons who are not members of the Indian Economic Association is Rs. 12 per annum. The Association, therefore, save per every member from Rs. 3 to 4 per annum. Besides this they share in the annual profits of the Journal to the sum of fifty per cent. The other fifty per cent. is utilised by the Departments of Economics and Commerce for buying books for the two Departments.

The Journal as it is, therefore, is a blessing to all concerned : The University of Allahabad enjoys the exclusive privilege of being the owner of a Journal of its own kind not only in India but in the whole of the East. The Indian Economic Association possess an organ which regularly, every quarter, reaches their members and annually adds a decent sum to their ever-growing fund, built out of the membership fees and the profits of the Journal. The members of the Economics and Commerce Departments share the unique privilege of having brought up the dis-owned nurseling of the University of Allahabad to manhood and maturity.

The present Managing Editor, in one capacity or another, has had the privilege of having been connected with the Indian Journal of Economics from its very start. As such he has a sort of feeling for it. Besides he is rather conservative. That is, disinclined to change unless the change proposed be of some intrinsic merit. He had always opposed the suggestions for changing the cover and the paper of the Journal. To him they had certain historic associations which he considered as sacrilege to change. Besides he believed, and still believes, that the value of a scientific journal is not based on the attractiveness or otherwise of the cover, though he has sense enough to realise that these too have their place and price, but on the quality of the subject-matter contained within those covers.

I have one more year to run as Managing Editor of the Indian Journal of Economics, and in that year while yielding to the wishes of the people, specially the management of the Indian Economic Association, to change the cover and the paper and the type from what they used to be to what they are now, I am also going to be a bit of an autocrat in the selection of the subject-matter that will now appear within these more attractive covers. The mere change of form without a corresponding change of substance would lead to nothing. The two must go hand in hand. So far following the practice of my predecessors I left the selection of the papers to the Board of Editors entirely. Now before I circulate the papers for approval to the Board of Editors I shall first determine whether a particular paper is fit to go in within these new covers or not. If the results of this experiment be satisfactory to all concerned the new Managing Editor could in the new agreement be invested with this new authority, at present assumed by the present Managing Editor in a rather high-handed manner. If, on the other hand, the results are not agreeable to all concerned the retiring Managing Editor could be asked to take along with him his peculiar ideas of Managing Editorship and the new man asked to carry on the old practice. Any way I have taken the plunge and for it the responsibility is entirely mine.

B. G. BHATNAGAR.
